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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	CellSpin_04Con8_US
First Inventor	Gurvinder Singh
Title	Automatic Multimedia Upload For Publishing Data And Multimedia Content
Express Mail Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: **Commissioner for Patents**
P.O. Box 1450
Alexandria VA 22313-1450

1. ☐ **Fee Transmittal Form.** (PTO/SB/17 or equivalent)
2. ☑ **Applicant claims small entity status.** See 37 CFR 1.27.
3. ☑ **Specification.** [*Total Pages* 30]
   Both the claims and abstract must start on a new page
   (For information on the preferred arrangement, see MPEP § 608.01(a))
4. ☑ **Drawing(s).** (*35 U.S.C. 113*) [*Total Sheets* 5]
5. **Inventor's Oath or Declaration.** [*Total Sheets* 3]
   (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))
   a. ☐ Newly executed (original or copy)
   b. ☑ A copy from a prior application (37 CFR 1.63(d))
6. ☑ **Application Data Sheet.** **See Note below.* See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
7. ☐ **CD-ROM or CD-R.** in duplicate, large table or Computer Program *(Appendix)*
   ☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission.** *(if applicable, items a. – c. are required)*
   a. ☐ Computer Readable Form (CRF)
   b. ☐ Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

9. ☑ **Assignment Papers.** (cover sheet & document(s))
   Name of Assignee CellSpinSoft Inc.
10. ☐ **37 CFR 3.73(c) Statement.** *(when there is an assignee)* ☑ **Power of Attorney.**
11. ☐ **English Translation Document.** *(if applicable)*
12. ☐ **Information Disclosure Statement.** (PTO/SB/08 or PTO-1449)
    ☐ Copies of citations attached
13. ☐ **Preliminary Amendment.**
14. ☐ **Return Receipt Postcard.** *(MPEP § 503) (Should be specifically itemized)*
15. ☐ **Certified Copy of Priority Document(s).** *(if foreign priority is claimed)*
16. ☐ **Nonpublication Request.** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
17. ☑ **Other:** Prioritized Examination Request

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

18. CORRESPONDENCE ADDRESS

☐ The address associated with Customer Number: _____ ***OR*** ☑ Correspondence address below

Name	Ashok Tankha				
Address	36 Greenleigh Drive				
City	Sewell	State	NJ	Zip Code	08080
Country	USA	Telephone	856-266-5145	Email	ash@ipprocurement.com

Signature	/a tankha/	Date	05 June 2014
Name (Print/Type)	Ashok Tankha	Registration No. (Attorney/Agent)	33802

This collection of information is required by 37 CFR 1.53(b). 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 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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Signature	/a tankha/	Date	05 June 2014
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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

AUTOMATIC MULTIMEDIA UPLOAD FOR PUBLISHING DATA AND MULTIMEDIA CONTENT

CROSS REFERENCE TO RELATED APPLICATIONS

1. This application is a continuation application of non-provisional patent application number 14/172,913, titled "Automatic multimedia upload for publishing multimedia content", filed on February 05, 2014 in the United States Patent and Trademark Office, which is a continuation application of non-provisional patent application number 13/740,214, titled "Automatic multimedia upload for publishing multimedia content", filed on January 13, 2013 in the United States Patent and Trademark Office, which is a continuation application of non-provisional patent application number 12/333,303, now Patent no. 8392591, titled "Automatic multimedia upload for publishing multimedia content", filed on December 11, 2008 in the United States Patent and Trademark Office, which claims the benefit of US provisional patent application number 61/017,202, titled "Automatic multimedia upload for publishing multimedia content", filed on December 28, 2007 in the United States Patent and Trademark Office. The specifications of the above referenced applications are incorporated herein by reference in their entirety.

2. The following patent application is incorporated herein in its entirety: US Non-provisional patent application serial number 11/901,802, titled "Online Publishing Of Multimedia Content", filed on September 19, 2007 in the United States Patent and Trademark Office.

BACKGROUND

This invention, in general, relates to distribution of multimedia content. More particularly, this invention relates to pairing a digital data capture device in conjunction with a mobile device for automatically publishing data and multimedia content on one or more websites simultaneously.

A user may need to capture and publish data and multimedia content on the internet in real time. Typically, the user would capture an image using a digital camera or a video camera, store the image on a memory device of the digital camera, and transfer the image to a computing device such as a personal computer (PC). In order to transfer the image to the PC, the user would transfer the image off-line to the PC, use a cable such as a universal serial bus (USB) or a memory stick and plug the cable into the PC. The user would then manually upload the image onto a website which takes time and may be inconvenient for the user.

Therefore, there is a need for a method and system to utilize a digital data capture device in conjunction with a mobile device for automatically detecting capture of data and multimedia content, transferring the captured data and multimedia content to the mobile device, and publishing the data and multimedia content on one or more websites automatically or with minimal user intervention.

SUMMARY OF THE INVENTION

This summary is provided to introduce a selection of concepts in a simplified form that are further described in the detailed description of the invention. This summary is not intended to identify key or essential inventive concepts of the claimed subject matter, nor is it intended for determining the scope of the claimed subject matter.

The method and system disclosed herein addresses the above stated need for utilizing a digital data capture device in conjunction with a Bluetooth™ (BT) enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. The digital data capture device is physically separated from the BT enabled mobile device.

In the method and system disclosed herein, a client application is provided on a BT enabled mobile device. In the absence of in-built BT capability in the digital data

capture device, a BT communication device is provided on the digital data capture device. The BT communication device may, for example, be an in-built BT capability chip, a BT memory card, or an external BT device. The BT communication device on the digital data capture device is paired with the BT enabled mobile device to establish a connection between the digital data capture device and the BT enabled mobile device.

A user may capture data and multimedia content using the digital data capture device. The digital data capture device may, for example, be a digital camera, a video camera, or other digital modular camera systems. The client application on the BT enabled mobile device detects the captured data, multimedia content, and files associated with the captured data and the multimedia content on the digital data capture device by communicating over a wireless BT protocol. The captured data, multimedia content, and the associated files are automatically transferred to the client application on the BT enabled mobile device from the digital data capture device.

The detection and transfer of the captured data, the multimedia content, and the associated files may be initiated by the client application of the BT enabled mobile device. The detection and transfer of the captured data, the multimedia content, and the associated files to the BT enabled mobile device may be initiated by the digital data capture device when the client application is unable to detect the captured data, the multimedia content, and the associated files from the digital data capture device.

The user may configure a timer setting and select the websites for publishing using the client application on the BT enabled mobile device. The client application selects the websites for publishing the transferred data and the multimedia content based on user preferences configured on the Bluetooth enabled mobile device. The client application also sets time for publishing the transferred data and the multimedia content automatically or with minimal user intervention. The client application on the BT enabled mobile device automatically publishes the transferred data and multimedia content on one or more websites using the settings configured by the user. The method and system disclosed herein thereby enables the user to capture data and multimedia content, for

example, audio, video, text, and images, automatically upload the captured data and multimedia content onto a BT enabled mobile device, and publish the data and multimedia content on one or websites automatically or with minimal user intervention. The user may therefore publish data and the multimedia content on immediate capture of the data and the multimedia content on the digital data capture device.

The method and system disclosed herein is described with reference to a BT communication protocol. The method and system disclosed herein may be realized with wireless protocols, for example, Zigbee® protocol, Wibree™ protocol, Ultra-Wide Band (UWB) protocol, and other wireless protocols for wireless personal area networks.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing summary, as well as the following detailed description of the invention, is better understood when read in conjunction with the appended drawings. For the purpose of illustrating the invention, exemplary constructions of the invention are shown in the drawings. However, the invention is not limited to the specific methods and instrumentalities disclosed herein.

FIG. **1** illustrates a method of utilizing a digital data capture device in conjunction with a Bluetooth enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention.

FIG. **2** illustrates a system for utilizing a digital data capture device in conjunction with a Bluetooth enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention.

FIGS. **3A-3C** exemplarily illustrate the Bluetooth communication device options used on the digital data capture device for establishing a Bluetooth connection with the client application on the Bluetooth enabled mobile device.

FIG. **4** exemplarily illustrates a system for publishing data and the multimedia content using a client application on a mobile device on one or more websites simultaneously.

FIG. **5** exemplarily illustrates a user utilizing a digital camera in conjunction with a Bluetooth enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** illustrates a method of utilizing a digital data capture device **201** in conjunction with a Bluetooth™ enabled mobile device **202** for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. The term "Bluetooth enabled mobile device" is herein referred to as "mobile device". The digital data capture device **201** is physically separated from the mobile device **202** as illustrated in FIG. **2**. The digital data capture device **201** may, for example, be a digital camera, a video camera, digital modular camera systems, or other digital data capturing systems.

In the method disclosed herein, a client application **203** is provided **101** on the mobile device **202**. In the absence of inbuilt Bluetooth (BT) capability in the digital data capture device **201**, a BT communication device **201a** is provided **102** on the digital data capture device **201**. The BT communication device **201a** may, for example, be an inbuilt BT capability chip **301**, a BT memory card **302**, or an external BT device **303** as illustrated in FIGS. **3A-3C** respectively. The external BT device **303** may, for example, be attached to a universal serial bus (USB), a firewire interface, or a power port of the digital data capture device **201**. BT provides a method of connecting and exchanging information between devices, for example, mobile phones, laptops, personal computers (PCs), printers, digital cameras, etc. over a secure and globally unlicensed short-range radio frequency.

The BT communication device **201a** on the digital data capture device **201** is paired **103** with the mobile device **202** to establish a connection between the digital data capture device **201** and the mobile device **202**. BT pairing involves establishing a connection between two BT devices that mutually agree to communicate with each other. A BT device that wants to communicate only with a trusted device can cryptographically authenticate the identity of another BT device. BT pairing occurs when the BT communication device **201a** agrees to communicate with the mobile device **202** in order to establish a connection. In order to initiate the pairing process between the BT communication device **201a** and the mobile device **202**, a common password known as a passkey is exchanged between the BT communication device **201a** and the mobile device **202**. A passkey is a code shared by the BT communication device **201a** and the mobile device **202**.

A user sets a discoverable mode for the mobile device **202**. When set to the discoverable mode, the mobile device **202** will allow the BT communication device **201a** on the digital data capture device **201** to detect the mobile device's **202** presence and attempt to establish a connection. In order to initiate the pairing process, the BT communication device **201a** will send the BT communication device name of a predefined number of characters, for example, up to 255 characters, and the BT address to the mobile device **202**. The BT communication device **201a** then prompts the user of the mobile device **202** to enter the passkey code in order to accept the pairing with the BT communication device **201a** on the digital data capture device **201**. On entering the passkey by the user of the mobile device **202**, the entered passkey is matched with the passkey of the BT communication device **201a**. If a match is found, a trusted pair is automatically established.

The user captures **104** data and multimedia content using the digital data capture device **201**. The data and multimedia content may, for example, comprise image files, audio files, video files, text files, or any combination thereof. The client application **203** on the mobile device **202** detects **105** the captured data, the multimedia content, and files associated with the captured data and the multimedia content. The client application **203**

then initiates the transfer of the captured data, the multimedia content, and the associated files in a pull mode of operation. In the pull mode, the client application **203** periodically polls the digital data capture device **201** to determine the creation of a new file in the digital data capture device **201**. The digital data capture device **201** then automatically transfers **106** the captured data, the multimedia content, and the associated files to the client application **203** on the mobile device **202** using one or a combination of file transfer protocols. The file transfer protocols may, for example, be one or a combination of BT profile protocols such as the object exchange (OBEX) protocol, the generic object exchange profile (GOEP) protocol, etc. The file transfer protocols may, for example, also be the media transfer protocol (MTP), the picture transfer protocol (PTP), and the PictBridge protocol implemented using a USB.

The picture transfer protocol (PTP) allows the transfer of images from digital cameras to computers and other peripheral devices without the need of additional device drivers. The media transfer protocol is a custom extension to the PTP and allows the protocol to be used for devices other than digital cameras, for example digital audio players and other portable media devices, for example portable video players. The PictBridge protocol allows images to be printed directly from digital cameras to a printer, without having to connect the camera to a computer.

The transfer of the data, the multimedia content, and the associated files may also take place in a push mode of operation. In the push mode, the BT communication device **201a** sends a signal to the client application **203** on creation of a new file. By implementation of a handshake protocol, the BT communication device **201a** automatically transfers captured data, the multimedia content, and the associated files to the client application **203** on the mobile device **202**. For some external digital data capture devices, the client application **203** may not be able to detect the creation of a new file. In such cases, the digital data capture device **201** signals the client application **203** in the event a new file is created. A file event listener in the client application **203** listens for the signal from the digital data capture device **201**. The user may then initiate the transfer by a press of a button or a key on the digital data capture device **201**.

In the case of a mobile device **202** with limited memory and processing capabilities, the client application **203** partitions the multimedia content of large files stored on the mobile device **202** into multiple data segments. The data segments are tagged with segment identifiers using the client application **203**. The tagged data segments are transferred from the client application **203** of the mobile device **202** to a publishing service **401** via a network **402** as illustrated in FIG. **4**.

When the client application **203** is unable to detect the captured data, the multimedia content, and the associated files from the digital data capture device **201**, the digital data capture device **201** initiates detection and transfer of the captured data, the multimedia content, and the associated files to the mobile device **202**.

The user may also set preferences on the mobile device **202**. The user preferences may, for example, comprise the websites selected for publishing the data and the multimedia content. The user may configure a timer setting and the websites on the mobile device **202** for publishing the data and the multimedia content. The user may also set timer and action settings for publishing the data and the multimedia content. The user may set the timer setting to, for example, a "no-wait-automatic" setting, a "wait-X-minutes-automatic" setting, and a "wait-X-minutes-user-input-cancel" setting. The client application **203** on the mobile device **202** selects the websites for publishing the transferred data and the multimedia content based on user preferences configured on the mobile device **202**. The client application **203** also sets time for publishing the transferred data and the multimedia content automatically or with minimal user intervention.

The client application **203** on the mobile device **202** then automatically publishes **107** the transferred data and multimedia content on one or more websites. If the user configures the timer setting to "no-wait-automatic", the data and the multimedia content are automatically published on one or more websites based on the user preferences configured on the mobile device **202** without waiting for a certain period of time. If the user configures the timer setting to "wait-X-minutes-automatic", the client application

203 will wait for "X" minutes for the user to change or cancel publishing. If there is no user action for "X" minutes, the client application **203** will automatically publish the data and multimedia content to one or more websites based on the user preferences. Further, if the user configures the timer setting to "wait-X-minutes-user-input-cancel", the client application **203** will wait for "X" minutes for an input from the user. If there is no input from the user, the client application **203** cancels the publishing of the data and multimedia content. The publishing of the data and multimedia content on one or more websites simultaneously is explained in the detailed description of FIG. **4**.

The user may therefore capture data, for example, audio, video, text, and images, automatically upload the captured data onto the mobile device **202**, and publish the data and multimedia content on one or websites automatically or with minimal user intervention. The method disclosed herein thereby enables the user to publish data and the multimedia content on immediate click of an image or recording of a video on the digital data capture device **201** without having to manually upload the data onto a computing device and then publish the data on the websites.

FIG. **2** illustrates a system for utilizing a digital data capture device **201** in conjunction with a BT enabled mobile device **202** for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. The system disclosed herein comprises a digital data capture device **201** and a client application **203** provided on the BT enabled mobile device **202**. The digital data capture device **201** and the mobile device **202** are physically separated from each other. The digital data capture device **201** comprises a BT communication device **201a** and a data capture module **201d**.

The BT communication device options used on the digital data capture device **201** for establishing a BT connection with the client application **203** on the BT enabled mobile device **202** are exemplarily illustrated in FIGS. **3A-3C**. The BT communication device **201a** may, for example, be an in-built BT capability chip **301** as illustrated in FIG.

3A, a BT memory card **302** as illustrated in FIG. **3B**, or an external BT device **303** as illustrated in FIG. **3C**.

The BT communication device **201a** comprises a BT association protocol module **201b** and a data transfer protocol module **201c**. The client application **203** on the mobile device **202** comprises a BT association protocol module **203a**, a data and file monitoring and detection module **203b**, a data transfer protocol module **203c**, a data storage module **203d**, a graphical user interface (GUI) **203e**, and a media publishing module **203f**. The BT association protocol module **201b** of the digital data capture device **201** and the BT association protocol module **203a** of the client application **203** enable the pairing between the BT communication device **201a** and the mobile device **202**. The pairing of the BT communication device **201a** and the mobile device **202** is explained in the detailed description of FIG. **1**. The data capture module **201d** captures the data and the multimedia content on the digital data capture device **201**.

The data and file monitoring and detection module **203b** of the client application **203** monitors and detects the capture of the data, the multimedia content, and the files associated with the captured data and the multimedia content. On detection, the data transfer protocol module **203c** of the client application **203** initiates the transfer and download of the captured data, the multimedia content, and the associated files from the digital data capture device **201**. When the client application **203** is unable to detect the captured data, the multimedia content, and the associated files from the digital data capture device **201**, the data transfer protocol module **201c** of the digital data capture device **201** initiates the transfer of the captured data, the multimedia content, and the associated files to the mobile device **202**.

The data transfer protocol module **201c** of the digital data capture device **201** transfers the captured data, the multimedia content, and the associated files to the client application **203**. The data storage module **203d** stores the captured data, the multimedia content, and the associated files on the mobile device **202**. The user may also set preferences on the mobile device **202** using the GUI **203e** of the client application **203**.

The user preferences may, for example, comprise the websites selected for publishing the data and the multimedia content. The GUI **203e** enables the user to configure a timer setting and websites on the mobile device **202** for publishing the data and the multimedia content. The user may also set timer and action settings for publishing the data and the multimedia content using the GUI **203e**. The user may set a timer setting, for example, a "no-wait-automatic" setting, a "wait-X-minutes-automatic" setting, and a "wait-X-minutes-user-input-cancel" setting as explained in the detailed description of FIG. **1**.

The media publishing module **203f** automatically publishes the transferred data and the multimedia content on one or more of the websites. The media publishing module **203f** comprises a website selection module **203g**, a timer module **203h**, a segmentation module **203i**, and a data transfer module **203j**. The website selection module **203g** selects the websites for publishing the data and the multimedia content based on settings and user preferences configured by the user on the mobile device **202**. The timer module **203h** sets the time for publishing the transferred data and the multimedia content automatically or with minimal user intervention. The timer setting may be set for automatic publishing of the multimedia content or a time based wait mode where user interaction is required. The timer module **203h** sets the timer based on a timer setting, for example, a "no-wait-automatic" setting, a "wait-X-minutes-automatic" setting, and a "wait-X-minutes-user-input-cancel" setting configured by the user. The timer module **203h** ensures that if the user does not wish to publish the transferred data and multimedia content, the user has time to decide whether to publish or not. The user may also configure the client application **203** to automatically delete the data, the multimedia content, and the associated files after the data and the multimedia content have been posted and published on one or more websites based on user preferences.

In the case of a mobile device **202** with limited memory and processing capabilities, the client application **203** partitions the multimedia content of large files stored on the mobile device **202** into multiple data segments using the segmentation module **203i**. The segmentation module **203i** generates segment identifiers and tags the data segments with the segment identifiers. The data transfer module **203j** transfers the

data, the tagged data segments, and the multimedia content from the client application **203** to the publishing service **401** via a network **402** for publishing on the websites automatically.

FIG. **4** exemplarily illustrates a system for publishing data and the multimedia content using a client application **203** on a mobile device **202** on one or more websites simultaneously. The system disclosed herein comprises a client application **203** and a publishing service **401** connected via a network **402**. The client application **203** comprises a media publishing module **203f** as explained in the detailed description of FIG. **2**. The media publishing module **203f** comprises the website selection module **203g**, the timer module **203h**, the segmentation module **203i**, and the data transfer module **203j**. The website selection module **203g** selects the websites based on user preferences configured by the user on the mobile device **202**. The timer module **203h** sets the time for publishing the transferred data and the multimedia content automatically or with minimal user intervention. The timer module **203h** ensures that the publishing service **401** obtains the data, the multimedia content, and the associated files to publish on the selected websites based on the time set by the user.

In the case of limited memory and processing capabilities of the mobile device **202**, the segmentation module **203i** of the client application **203** partitions the multimedia content of large files into multiple data segments. The segmentation module **203i** generates segment identifiers and tags the data segments with the segment identifiers. The segment identifiers may, for example, be one or more of transaction identifiers, sequence numbers, and timestamps. The segment identifiers are used later by a back end service **401b** of the publishing service **401** to reassemble the data segments in a predetermined sequence to create a multimedia object. The data transfer module **203j** transfers the data, the tagged data segments, and the multimedia content from the client application **203** to the publishing service **401** via the network **402**. The network **402** may, for example, be a wireless network, a cellular network, or the internet **501**.

The publishing service **401** comprises a front end service **401a**, a back end service **401b**, and a database **401d**. The transferred data and multimedia content is stored in the database **401d** of the publishing service **401**. A protocol is provided for synchronizing user publishing information between the client application **203** and the publishing service **401**. The user publishing information may, for example, comprise user preferences of the websites and the timer setting. The data transfer module **203j** may transfer the data and the multimedia content as a single multimedia file, multiple data segments in the case of large files, or electronic mail attachments to the back end service **401b** of the publishing service **401** via the front end service **401a**. The back end service **401b** comprises a data reassembly module **401c**. If the back end service **401b** receives the multimedia content in the form of multiple data segments, the data reassembly module **401c** reassembles the data segments in a predetermined sequence using the segment identifiers. The back end service **401b** then creates a multimedia object from the transferred data and multimedia content. The multimedia object is transferred from the back end service **401b** to the front end service **401a** and then published on the websites selected by the user.

FIG. **5** exemplarily illustrates a user **502** utilizing a digital camera in conjunction with a Bluetooth enabled mobile device **202** for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. The digital camera is physically separated from the mobile device **202** as illustrated in FIG. **5**. The digital camera comprises a BT communication device **201a** such as an in-built BT capability chip **301**, a BT memory card **302**, or an external BT device **303** or dongle externally attached to the digital camera as illustrated in FIGS. **3A-3C**. The external BT dongle may be attached to a USB, a firewire interface, or a power port of the digital camera. The BT communication device **201a** on the digital camera is paired with the mobile device **202** to establish a connection. The user **502** may capture an image using the digital camera. The client application **203** on the mobile device **202** detects the captured image and initiates the transfer of the captured image and the associated files. The digital camera automatically transfers the captured image and the associated files to the client application **203** on the mobile device **202**.

The client application **203** automatically publishes the transferred image on one or more websites via the internet **501**. The user **502** may set preferences in the mobile device **202**. The user preferences, for example, comprise the websites selected for publishing the transferred image. The user **502** may select websites, for example, Flickr™, Picasa™, YouTube™, eBay®, etc. and store the preferences on the mobile device **202**. The user **502** may also set the timer setting for publishing the transferred image on the selected websites. After the captured image is transferred to the mobile device **202**, the client application **203** publishes the capture image on the selected websites based on the default timer and website settings configured by the user **502** on the mobile device **202**.

Consider an example where a user **502** records a video using a BT enabled video camera. The video camera immediately establishes a connection with the user's **502** BT enabled mobile device **202**. On detection of the recorded video by the client application **203** on the mobile device **202**, the video camera automatically transfers the recorded video to the user's **502** mobile device **202**. In the case of limited memory and processing capabilities of the mobile device **202**, the recorded video may be streamed as data segments from the mobile device **202** to the publishing service **401**. The client application **203** individually tags the data segments with segment identifiers and transfers the tagged data segments from the mobile device **202** to the back end service **401b** of the publishing service **401** via the front end service **401a**. The back end service **401b** of the publishing service **401** reassembles the data segments in a predetermined sequence using the segment identifiers to create the multimedia object. The multimedia object is an aggregation of the reassembled data segments. The multimedia object is then transferred from the back end service **401b** to the front end service **401a** and automatically published by the front end service **401a** on one or more websites selected by the user **502**.

Consider another example where a user **502** may record videos or capture images at different points in time and automatically uploads and publishes the videos and images on one or more websites. Consider an investigative reporter, Jane, working for a prominent newspaper in New York City. Each day, she moves around the city chasing

leads, interviewing people, videotaping her stories, taking pictures, and tracking down her next big story. When she is working on a story with an associate writer, she may need to upload her videos and pictures and send it immediately to the associate writer. The method and system disclosed herein enables Jane to automatically upload pictures and videos taken using her digital camera or video camera onto a mobile device **202** and publish the pictures, videos, etc. from her mobile device **202** to the internet **501** with one click or touch of a button.

On one click or touch of a button, the pictures and videos are published and immediately made available on Jane's private blog that may be accessed by the newspaper editor and her associates in the news office. When she is collaborating with an associate on a story, they may see each other's progress in real time. Since sharing information with the associate over electronic mails (emails) may be inconvenient, Jane records her progress on the story in the voice format and publishes. The associate may access the information from Jane's blog site, thereby saving considerable time.

Exemplarily, the method and system disclosed herein may be implemented in technologies that are pervasive, flexible, and capable enough of accomplishing the desired tasks of the method and system. The method and system disclosed herein is realized with, but not limited to Bluetooth communication protocol. Wireless protocols, for example, Zigbee® protocol, Wibree™ protocol, Ultra-Wide Band (UWB) protocol, and other wireless protocols for wireless personal area networks may be employed to accomplish the tasks of the method and system disclosed herein. The mobile device **202** may, for example, be a ubiquitous mobile phone. The use of personal digital assistants (PDAs) without telephony support is also fairly widespread. The client application **203** may be deployed on mobile devices with limited or no telephony support. These mobile devices may support Java of Sun Microsystems Inc., more specifically Java 2 Micro Edition (J2ME™), Windows Mobile .Net Compact Framework of Microsoft, Inc., Symbian™, Linux framework. The client application **203** may, for example, be implemented on the J2ME platform. These environments provide functionalities in the libraries to create the GUI **203e** and perform all the required functions of the method and

system disclosed herein. Other advantages of these frameworks are portability across mobile devices that run on different operating systems.

The client application **203** may be rendered independent of the operating system of the mobile device **202**. One of the transport mechanisms to achieve the connectivity between the publishing service **401** and the client application **203** is the wireless internet. While most PDAs have an inbuilt wireless network card for the internet connectivity, the mobile phones may transfer data to the publishing service **401** over the telephony network at near broadband speeds. Some of the mobile phones equipped with both wireless network and telephony data capabilities may use either of the two to communicate with the publishing service **401**. The transport protocol that is used between the client application **203** and the publishing service **401** may be hypertext transfer protocol (HTTP) or extensible markup language-remote procedure calls (XML-RPC). The back end service **401b** may, for example, be developed in Java.

It will be readily apparent that the various methods and algorithms described herein may be implemented in a computer readable medium appropriately programmed for general purpose computers and computing devices. Typically a processor, for e.g., one or more microprocessors will receive instructions from a memory or like device, and execute those instructions, thereby performing one or more processes defined by those instructions. Further, programs that implement such methods and algorithms may be stored and transmitted using a variety of media, for e.g., computer readable media in a number of manners. In one embodiment, hard-wired circuitry or custom hardware may be used in place of, or in combination with, software instructions for implementation of the processes of various embodiments. Thus, embodiments are not limited to any specific combination of hardware and software. A "processor" means any one or more microprocessors, Central Processing Unit (CPU) devices, computing devices, microcontrollers, digital signal processors or like devices. The term "computer-readable medium" refers to any medium that participates in providing data, for example instructions that may be read by a computer, a processor or a like device. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media,

and transmission media. Non-volatile media include, for example, optical or magnetic disks and other persistent memory volatile media include Dynamic Random Access Memory (DRAM), which typically constitutes the main memory. Transmission media include coaxial cables, copper wire and fiber optics, including the wires that comprise a system bus coupled to the processor. Common forms of computer-readable media include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, any other magnetic medium, a Compact Disc-Read Only Memory (CD-ROM), Digital Versatile Disc (DVD), any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a Random Access Memory (RAM), a Programmable Read Only Memory (PROM), an Erasable Programmable Read Only Memory (EPROM), an Electrically Erasable Programmable Read Only Memory (EEPROM), a flash memory, any other memory chip or cartridge, a carrier wave as described hereinafter, or any other medium from which a computer can read. In general, the computer-readable programs may be implemented in any programming language. Some examples of languages that can be used include C, C++, C#, or JAVA. The program will use various security, encryption and compression techniques to enhance the overall user experience. The software programs may be stored on or in one or more mediums as an object code. A computer program product comprising computer executable instructions embodied in a computer-readable medium comprises computer parsable codes for the implementation of the processes of various embodiments.

Where databases are described such as the database **401d**, it will be understood by one of ordinary skill in the art that (i) alternative database structures to those described may be readily employed, and (ii) other memory structures besides databases may be readily employed. Any illustrations or descriptions of any sample databases presented herein are illustrative arrangements for stored representations of information. Any number of other arrangements may be employed besides those suggested by, e.g., tables illustrated in drawings or elsewhere. Similarly, any illustrated entries of the databases represent exemplary information only; one of ordinary skill in the art will understand that the number and content of the entries can be different from those described herein. Further, despite any depiction of the databases as tables, other formats including

relational databases, object-based models and/or distributed databases could be used to store and manipulate the data types described herein. Likewise, object methods or behaviors of a database can be used to implement various processes, such as the described herein. In addition, the databases may, in a known manner, be stored locally or remotely from a device that accesses data in such a database.

The present invention can be configured to work in a network environment including a computer that is in communication, via a communications network, with one or more devices. The computer may communicate with the devices directly or indirectly, via a wired or wireless medium such as the Internet, Local Area Network (LAN), Wide Area Network (WAN) or Ethernet, Token Ring, or via any appropriate communications means or combination of communications means. Each of the devices may comprise computers, such as those based on the Intel® processors, AMD® processors, Sun® processors, IBM® processors etc., that are adapted to communicate with the computer. Any number and type of machines may be in communication with the computer.

The foregoing examples have been provided merely for the purpose of explanation and are in no way to be construed as limiting of the present method and system disclosed herein. While the invention has been described with reference to various embodiments, it is understood that the words, which have been used herein, are words of description and illustration, rather than words of limitation. Further, although the invention has been described herein with reference to particular means, materials and embodiments, the invention is not intended to be limited to the particulars disclosed herein; rather, the invention extends to all functionally equivalent structures, methods and uses, such as are within the scope of the appended claims. Those skilled in the art, having the benefit of the teachings of this specification, may effect numerous modifications thereto and changes may be made without departing from the scope and spirit of the invention in its aspects.

CLAIMS

We claim:

1. A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

    providing a software module on the Bluetooth enabled mobile device, the software module, performing;

        determining size of a file to be transferred;

        segmenting said file into data segments at an application layer level, wherein data in said data segments comprises one or more of said file data and data associated with said file data;

        applying a segment identifier to each of said data segments at the application layer level;

        applying a user identifier to each of said data segments for the destination web service at the application layer level, wherein said user identifier uniquely identifies a particular user of the web service;

        transferring a data segment along with said user identifier and said segment identifier to the web service;

        receiving a reply message from the web service, corresponding to successful completion of said data segment transfer;

        repeating the step of data segment transfer and the step of receiving the reply message, until all the data segments have been transferred to the web service

successfully, wherein if segmented file transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, corresponding to asking the web service about the segmented file data the web service has successfully received, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to indicate segmented file data said web service has successfully received, for said user identifier; and

resuming, the segmented file transfer based on the synchronization reply received, for said user identifier;

receiving, at the web service, all the data segments along with said user identifier and segment identifiers for said file transfer;

storing, at the web service, the received file data segments and segment identifiers for said user identifier; and

making available, at the web service, the segmented data received from the Bluetooth enabled mobile device for public or private consumption over the internet.

2. The method of claim 1, wherein the data associated with file data is at least one of name of the file, size of the file, and type of file.

3. The method of claim 1, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

4. The method of claim 1, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

5. The method of claim 1, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

6. The method of claim 1, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment.

7. A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on a Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into a first data segment and a second data segment at an application layer level, wherein the second data segment comprises file data and the first data segment comprises data associated with file data, and wherein the data associated with file data is at least one of name of the file, size of the file, and type of the file;

applying a user identifier to said first data segment at the application layer level, wherein the user identifier uniquely identifies a particular user of a web service;

transferring said first data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said first data segment transfer;

applying said user identifier to said second data segment at the application layer level;

transferring said second data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said second data segment transfer, wherein if said second data segment transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to the successfully received data of said second data segment by said web service, for said user identifier; and

resuming, the segmented file transfer by transferring remaining data of the second data segment based on the synchronization reply received, wherein resuming the segmented file transfer of remaining data comprises, the software module, performing:

creating one or more data segments at the application layer level, wherein the one or more data segments comprise remaining data of the second data segment;

applying a segment identifier to each of said one or more data segments at the application layer level;

applying said user identifier to each of said one or more data segments at the application layer level; and

transferring said one or more data segments along with said user identifier and said corresponding segment identifier to the web service;

receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer;

storing, at the web service, the received file data segments and segment identifiers for a user identifier; and

making available, at the web service, the segmented data received from the Bluetooth enabled mobile device for public or private consumption over the internet, wherein one or more portions of the data correspond to a particular user of the web services.

8. The method of claim 7, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

9. The method of claim 7, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information

comprise user-name, user-password, user-device-information, user settings, or user preferences.

10. The method of claim 7, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

11. The method of claim 7, wherein the segment identifier corresponds to the content range of the remaining data of the file.

12. A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on the Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into data segments at an application layer level, wherein data in said data segments comprises one or more of said file data and data associated with said file data;

applying a segment identifier to each of said data segments at the application layer level;

applying a user identifier to each of said data segments for the destination web service at the application layer level, wherein said user identifier uniquely identifies a particular user of the web service;

transferring a data segment along with said user identifier and said segment identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said data segment transfer;

repeating the step of data segment transfer and the step of receiving the reply message, until all the data segments have been transferred to the web service successfully, wherein if segmented file transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, corresponding to asking the web service about the segmented file data the web service has successfully received, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to indicate segmented file data said web service has successfully received, for said user identifier; and

resuming, the segmented file transfer based on the synchronization reply received, for said user identifier;

receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer;

reassembling the received file data segments automatically using segment identifiers and a user identifier, at the application layer level, at the web service; and

making available, at the web service, the reassembled data file, for public or private consumption over the internet.

13. The method of claim 12, wherein the data associated with file data is at least one of name of the file, size of the file, and type of file.

14. The method of claim 12, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

15. The method of claim 12, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

16. The method of claim 12, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

17. The method of claim 12, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment.

18. A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on a Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into a first data segment and a second data segment at an application layer level, wherein the second data segment comprises file data and the first data segment comprises data associated with file data, and

wherein the data associated with file data is at least one of name of the file, size of the file, and type of the file;

applying a user identifier to said first data segment at the application layer level, wherein the user identifier uniquely identifies a particular user of a web service;

transferring said first data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said first data segment transfer;

applying said user identifier to said second data segment at the application layer level;

transferring said second data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said second data segment transfer, wherein if said second data segment transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to the successfully received data of said second data segment by said web service, for said user identifier; and

resuming, the segmented file transfer by transferring remaining data of the second data segment based on the synchronization reply received, wherein resuming the segmented file transfer of remaining data comprises, the software module, performing:

creating one or more data segments at the application layer level, wherein the one or more data segments comprise remaining data of the second data segment;

applying a segment identifier to each of said one or more data segments at the application layer level;

applying said user identifier to each of said one or more data segments at the application layer level; and

transferring said one or more data segments along with said user identifier and said corresponding segment identifier to the web service;

receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer;

reassembling the received file data segments automatically using segment identifiers and a user identifier, at the application layer level, at the web service; and

making available, at the web service, the reassembled data file, for public or private consumption over the internet.

19. The method of claim 18, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

20. The method of claim 18, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

21. The method of claim 18, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

22. The method of claim 18, wherein the segment identifier corresponds to the content range of the remaining data of the file.

ABSTRACT

Disclosed herein is a method and system for utilizing a digital data capture device in conjunction with a Bluetooth (BT) enabled mobile device for publishing data and multimedia content on one or more websites automatically or with minimal user intervention. A client application is provided on the BT enabled mobile device. In the absence of inbuilt BT capability, a BT communication device is provided on the digital data capture device. The BT communication device is paired with the BT enabled mobile device to establish a connection. The client application detects capture of data and multimedia content on the digital data capture device and initiates transfer of the captured data, multimedia content, and associated files. The digital data capture device transfers the captured data, multimedia content, and the associated files to the client application. The client application automatically publishes the transferred data and multimedia content on one or more websites.

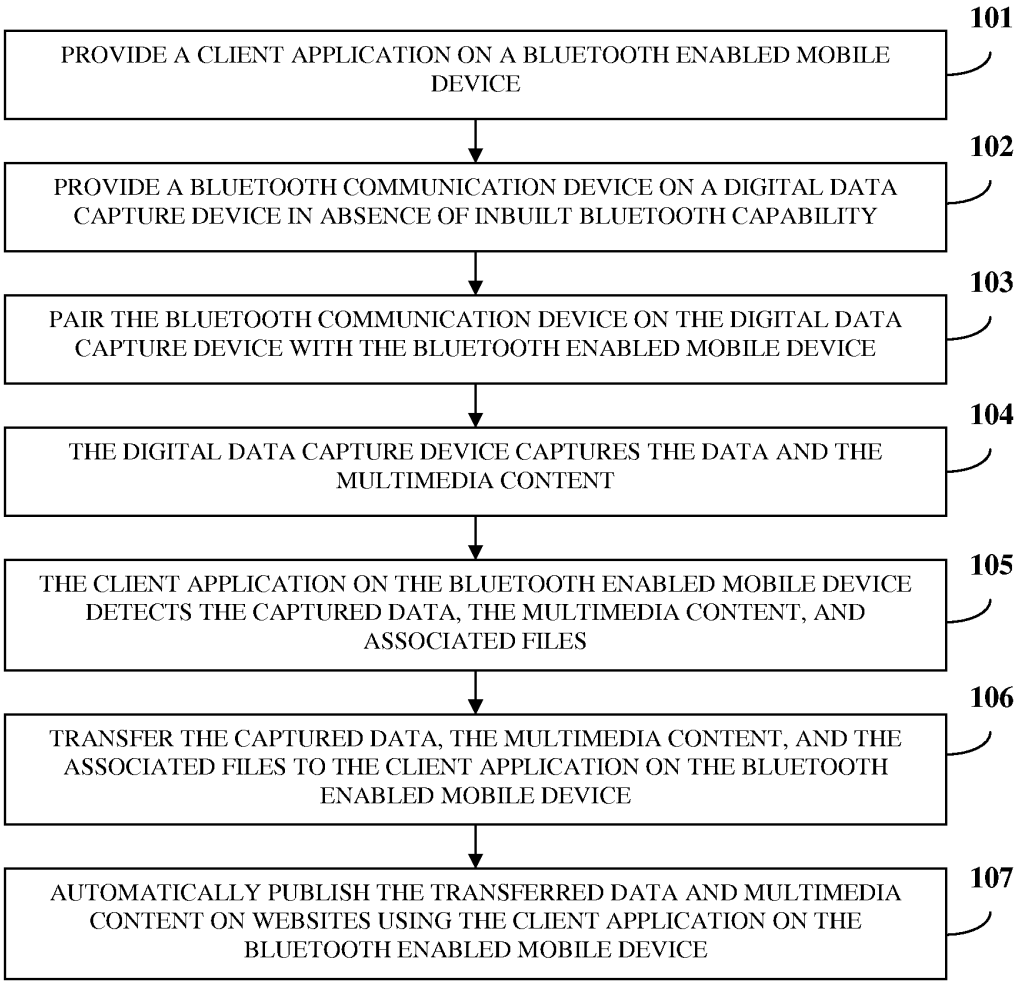
101
PROVIDE A CLIENT APPLICATION ON A BLUETOOTH ENABLED MOBILE DEVICE
102
PROVIDE A BLUETOOTH COMMUNICATION DEVICE ON A DIGITAL DATA CAPTURE DEVICE IN ABSENCE OF INBUILT BLUETOOTH CAPABILITY
103
PAIR THE BLUETOOTH COMMUNICATION DEVICE ON THE DIGITAL DATA CAPTURE DEVICE WITH THE BLUETOOTH ENABLED MOBILE DEVICE
104
THE DIGITAL DATA CAPTURE DEVICE CAPTURES THE DATA AND THE MULTIMEDIA CONTENT
105
THE CLIENT APPLICATION ON THE BLUETOOTH ENABLED MOBILE DEVICE DETECTS THE CAPTURED DATA, THE MULTIMEDIA CONTENT, AND ASSOCIATED FILES
106
TRANSFER THE CAPTURED DATA, THE MULTIMEDIA CONTENT, AND THE ASSOCIATED FILES TO THE CLIENT APPLICATION ON THE BLUETOOTH ENABLED MOBILE DEVICE
107
AUTOMATICALLY PUBLISH THE TRANSFERRED DATA AND MULTIMEDIA CONTENT ON WEBSITES USING THE CLIENT APPLICATION ON THE BLUETOOTH ENABLED MOBILE DEVICE

FIG. 1

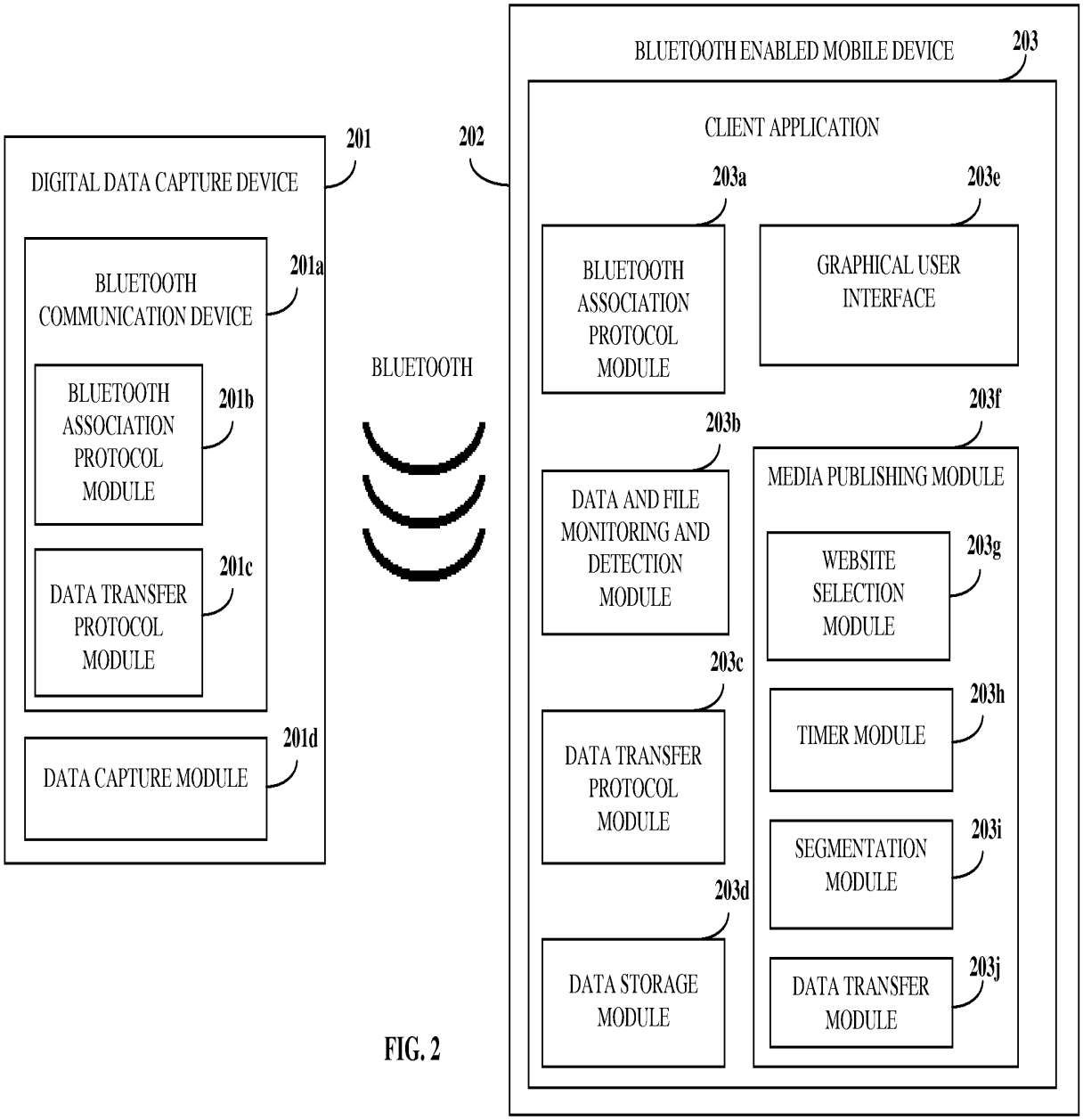
DIGITAL DATA CAPTURE DEVICE
201
BLUETOOTH COMMUNICATION DEVICE
201a
BLUETOOTH ASSOCIATION PROTOCOL MODULE
201b
DATA TRANSFER PROTOCOL MODULE
201c
DATA CAPTURE MODULE
201d
BLUETOOTH
202
BLUETOOTH ENABLED MOBILE DEVICE
203
CLIENT APPLICATION
203a
BLUETOOTH ASSOCIATION PROTOCOL MODULE
203e
GRAPHICAL USER INTERFACE
203b
DATA AND FILE MONITORING AND DETECTION MODULE
203f
MEDIA PUBLISHING MODULE
WEBSITE SELECTION MODULE
203g
203c
DATA TRANSFER PROTOCOL MODULE
TIMER MODULE
203h
SEGMENTATION MODULE
203i
203d
DATA STORAGE MODULE
DATA TRANSFER MODULE
203j

FIG. 2

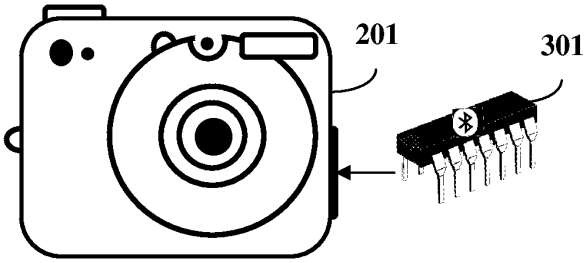

FIG. 3A

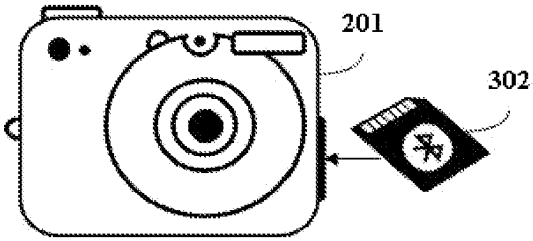

FIG. 3B

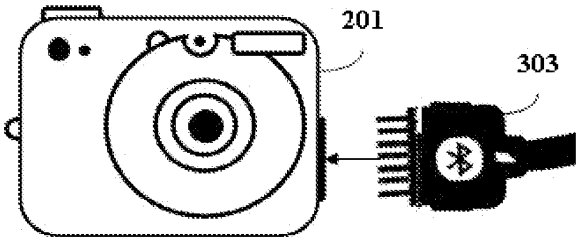

FIG. 3C

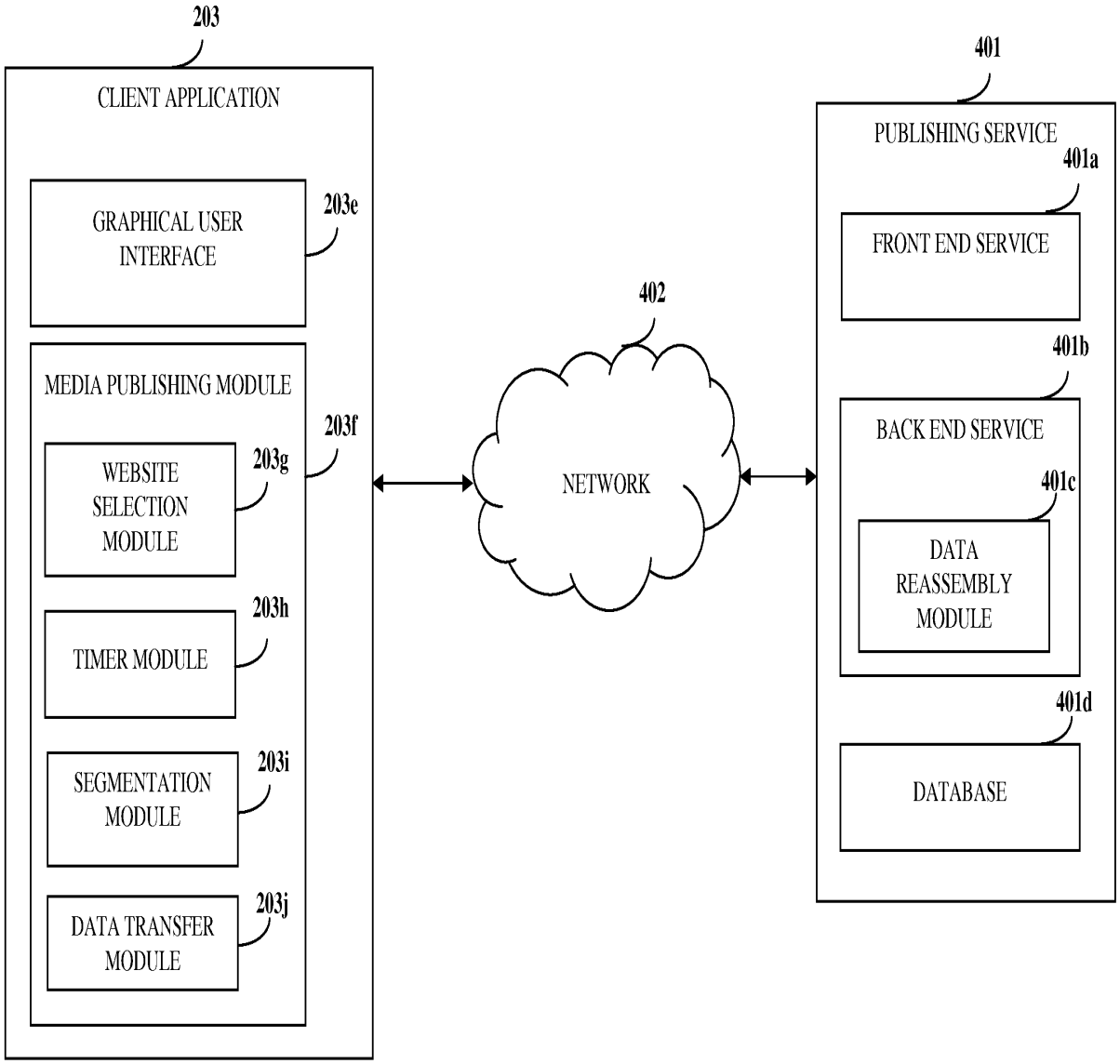
203
CLIENT APPLICATION
GRAPHICAL USER INTERFACE
203e
MEDIA PUBLISHING MODULE
203f
WEBSITE SELECTION MODULE
203g
TIMER MODULE
203h
SEGMENTATION MODULE
203i
DATA TRANSFER MODULE
203j
402
NETWORK
401
PUBLISHING SERVICE
401a
FRONT END SERVICE
401b
BACK END SERVICE
401c
DATA REASSEMBLY MODULE
401d
DATABASE

FIG. 4

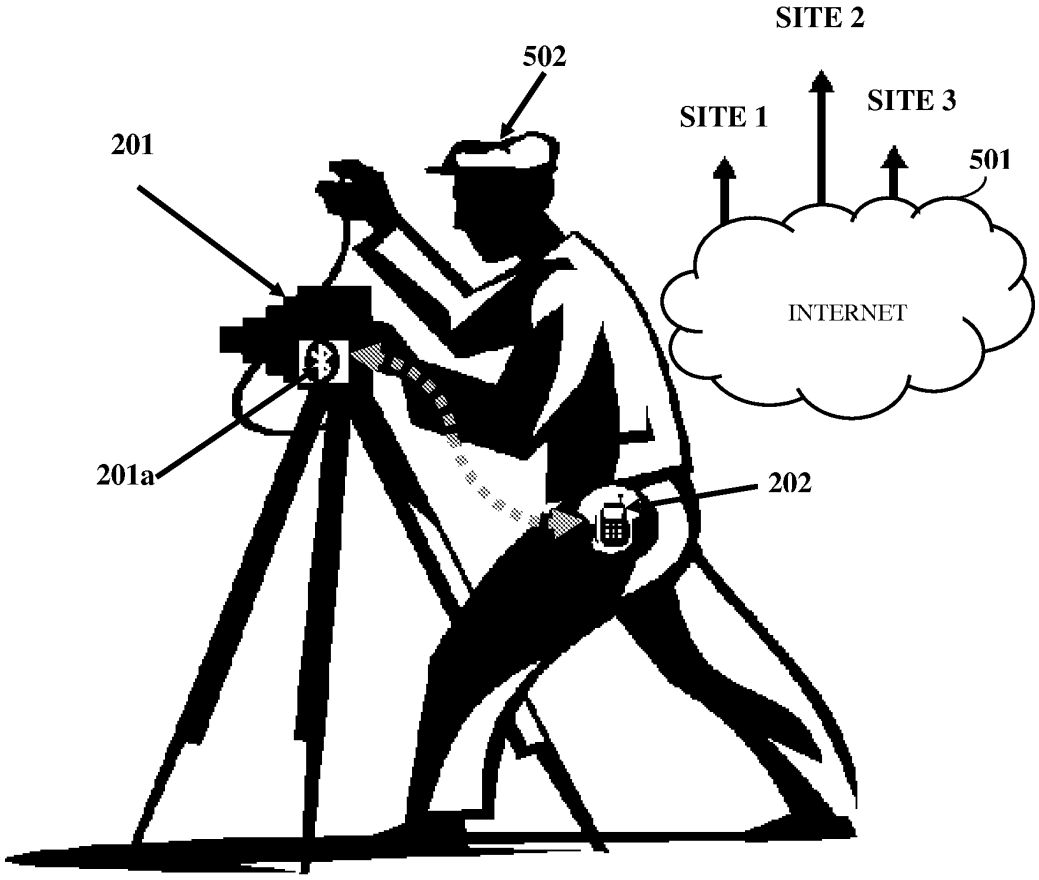

FIG. 5

Doc Code: Oath
Document Description: Oath or declaration filed

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

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DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☒ Declaration Submitted With Initial Filing OR ☐ Declaration Submitted After Initial Filing (surcharge (37 CFR 1.16(f)) required)

Attorney Docket Number	Cellspin_04
First Named Inventor	Gurvinder Singh
COMPLETE IF KNOWN	
Application Number	
Filing Date	
Art Unit	
Examiner Name	

Automatic Multimedia Upload For Publishing Data And Multimedia Content

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☒ The attached application,

OR

☐ United States Application Number or PCT International application 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.

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 and select option 2.

PTO/AIA/08 (06-12)
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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 contains a valid OMB control number.

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☐ The address associated with Customer Number: [ ] OR ■ Correspondence address below

Name: Ashok Tankha		
Address: 36 Greenleigh Drive		
City: Sewell	State: NJ	Zip: 08080
Country: USA	Telephone: 856-266-5145	Email: ash@ipprocure.com

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: *Patent Application Files*. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: *Deposit Accounts and Electronic Funds Transfer Profiles*.

LEGAL NAME OF SOLE OR FIRST INVENTOR:

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

Gurvinder Singh

Inventor's Signature: Gurvinder Singh	Date (Optional): 10th Jan 2013.	
Residence: City: Santa Clara	State: CA	Country: USA
Mailing Address: 151 Buckingham Drive , Apt #299, Santa Clara, CA 95051		
City: Santa Clara	State: CA	Zip: 95051	Country: USA

■ Additional inventors are being named on the 1 supplemental sheet(s) PTO/AIA/10 attached hereto

[Page 2 of 2]

PTO/AIA/10 (06-12)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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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)
2. Marcos Klein

Inventor's Signature: Marcos Klein | Date (Optional): 10 JAN 2013

Residence: City: Mountain View | State: CA | Country: USA

Mailing Address: 1420 Mercy St, Mountain View, CA 94043, USA

City: Mountain View | State: CA | Zip: 94043 | Country: USA

Legal Name of Additional Joint Inventor, if any:
(*E.g.*, Given Name (first and middle (if any)) and Family Name or Surname)
Vince Laviano

Inventor's Signature: Vince Laviano | Date (Optional): 10 Jan 2013

Residence: City: Alviso | State: CA | Country: USA

Mailing Address: P.O. Box 1021, Alviso, CA 95002-1021, USA

City: Alviso | State: CA | Zip: 95002 | Country: USA

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.

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

PTO/AIA/82A (07-12)
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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B or equivalent) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5. If the Power of Attorney by Applicant form is not accompanied by this transmittal form or an equivalent, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	
First Named Inventor	Gurvinder Singh
Title	Automatic Multimedia Upload For Publishing Data And Multimedia Content
Art Unit	Not Assigned
Examiner Name	Not Assigned
Attorney Docket Number	CellSpin_04Con8_US

SIGNATURE of Applicant or Patent Practitioner

Signature	/a tankha/	Date	05 June 2014
Name	Ashok Tankha	Telephone	856-266-5145
Registration Number	33802		

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

☒ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 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.**

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PTO/AIA/80 (07-12)
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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

☐ Practitioners associated with Customer Number:

OR

☒ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number
Ashok Tankha	33802		

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

☐ The address associated with Customer Number:

OR

☒

Firm or Individual Name	Ashok Tankha		
Address	36 Greenleigh Drive		
City	Sewell	State NJ	Zip 08080
Country	USA		
Telephone	856-266-5145	Email ash@ipprocure.com	

Assignee Name and Address: CellSpinSoft Inc.
4423 Fortran Dr, Suite #116
San Jose, CA 95134

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	[signature]	Date	1/16/2013
Name	Gurvinder Singh	Telephone	408-410-8590
Title	CEO		

This collection of information is required by 37 CFR 1.31, 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.**

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	CellSpin_04Con8_US
	Application Number	
Title of Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content	

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 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Gurvinder		Singh	

Residence Information (Select One) ◉ US Residency ◯ Non US Residency ◯ Active US Military Service

City	Santa Clara	State/Province	CA	Country of Residence i	US

Mailing Address of Inventor:

Address 1	151 Buckingham Drive, Apt #299, Santa Clara, CA		
Address 2			
City	Santa Clara	State/Province	CA
Postal Code	95051	Country i	US

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Marcos		Klein	

Residence Information (Select One) ◉ US Residency ◯ Non US Residency ◯ Active US Military Service

City	Mountain View	State/Province	CA	Country of Residence i	US

Mailing Address of Inventor:

Address 1	1420 Mercy St, Mountain View, CA		
Address 2			
City	Mountain View	State/Province	CA
Postal Code	94041	Country i	US

Inventor 3 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Vince		Laviano	

Residence Information (Select One) ◉ US Residency ◯ Non US Residency ◯ Active US Military Service

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	CellSpin_04Con8_US
	Application Number	
Title of Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content	

City	Alviso	**State/Province**	CA	**Country of Residence** i	US

Mailing Address of Inventor:

Address 1	P.O. Box 1021, Alviso, CA 95002-1021		
Address 2			
City	Alviso	**State/Province**	CA
Postal Code	95002	**Country** i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

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.**

Name 1	Ashok Tankha	**Name 2**	
Address 1	36 Greenleigh drive		
Address 2			
City	Sewell	**State/Province**	NJ
Country i	US	**Postal Code**	08080
Phone Number	856-266-5145	**Fax Number**	856-374-0246
Email Address	ash@ipprocurement.com	Add Email	Remove Email

Application Information:

Title of the Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content		
Attorney Docket Number	CellSpin_04Con8_US	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)		**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.

Representative Information:

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	CellSpin_04Con8_US
	Application Number	
Title of Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content	

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)		
Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	Remove
	Ashok		Tankha		
Registration Number	33802				
Additional Representative Information blocks may be generated within this form by selecting the **Add** button.					Add

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			Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	14172913	2014-02-05
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
14172913	Continuation of	13740214	2013-01-13
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
13740214	Continuation of	12333303	2008-12-11
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
12333303	non provisional of	61017202	2007-12-28
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.			Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. 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(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	CellSpin_04Con8_US
	Application Number	
Title of Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content	

Remove

Application Number	Country [i]	Filing Date (YYYY-MM-DD)	Access Code [i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☒ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

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.

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.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	CellSpin_04Con8_US
	Application Number	
Title of Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content	

Applicant 1 Remove

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.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary 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 Applicant is an Organization check here. ☒

Organization Name	CellSpinSoft Inc.		
Mailing Address Information:			
Address 1	4423 Fortran Drive, #116, San Jose, California		
Address 2			
City	San Jose	**State/Province**	CA
Country i	US	Postal Code	95134
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Non-Applicant Assignee Information:

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

Assignee 1

Complete this section only if non-applicant assignee information is desired to be included on the patent application publication in accordance with 37 CFR 1.215(b). Do not include in this section 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), as the patent application publication will include the name of the applicant(s).

Remove

If the Assignee is an Organization check here. ☐

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	CellSpin_04Con8_US
	Application Number	
Title of Invention	Automatic Multimedia Upload For Publishing Data And Multimedia Content	

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information:			
Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications					
Signature	/a tankha/			Date (YYYY-MM-DD)	2014-06-05
First Name	Ashok	Last Name	Tankha	Registration Number	33802

Additional Signature may be generated within this form by selecting the Add button. Add

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.**

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 the Freedom of Information Act requires disclosure of these records.

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 inspections 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:	
Filing Date:	
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Filer:	Ashok Tankha
Attorney Docket Number:	CellSpin_04Con8_US
Filed as Small Entity	

Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	70	70
Utility Search Fee	2111	1	300	300
Utility Examination Fee	2311	1	360	360
Request for Prioritized Examination	2817	1	2000	2000
Pages:				
Claims:				
Claims in excess of 20	2202	2	40	80
Independent Claims in Excess of 3	2201	1	210	210

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous-Filing:				
Publ. Fee- Early, Voluntary, or Normal	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	2830	1	70	70
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**3090**

Electronic Acknowledgement Receipt	
EFS ID:	19228720
Application Number:	14297616
International Application Number:	
Confirmation Number:	7021
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Customer Number:	64188
Filer:	Ashok Tankha
Filer Authorized By:	
Attorney Docket Number:	CellSpin_04Con8_US
Receipt Date:	05-JUN-2014
Filing Date:	
Time Stamp:	23:38:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$3090
RAM confirmation Number	9504
Deposit Account	503291
Authorized User	TANKHA, ASHOK
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 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	TrackOne Request	CellSpin_04Con8_US_Prioritized_Examination_sb0424.pdf	178078 d45c9f2a95ce3d86b9ad1fd53f5063a9f51fd726	no	2
Warnings:					
Information:					
2	Transmittal of New Application	CellSpin_04Con8_US_Transmittal.pdf	353992 74e7fb006e3a25d9c4f7a046690ed73c0bb8d297	no	1
Warnings:					
Information:					
3		CellSpin_04Con8_US_Specification.pdf	113958 1ce4f304baa611fc0fc7a5becae3dfb3fbec59ac	yes	30
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	18	
	Claims		19	29	
	Abstract		30	30	
Warnings:					
Information:					
4	Drawings-only black and white line drawings	CellSpin_04Con8_US_Drawing.pdf	70779 2f96a31a93c63769d334c5fdb02a2a6af612226a	no	5
Warnings:					
Information:					
5	Oath or Declaration filed	CellSpin_04Con8_US_Declaration.pdf	5798263 919a6ddcadb9c9f781aa4719b498d361e18bbc72	no	3
Warnings:					
Information:					
6	Power of Attorney	CellSpin_04Con8_US_POA.pdf	3456469 4bfbf47fb7e9dcc586bc21b1139dd8e8fa8f4267	no	2
Warnings:					
Information:					
7	Application Data Sheet	CellSpin_04Con8_US_ADS.pdf	1503991 8f2549ff88f942b88e3943f8f537a1d8a356b789	no	7

Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	43048 d6c0ea19c2a18cf092c0bdbf06df6f17e89fdf13	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	11518578		

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.

<u>New Applications Under 35 U.S.C. 111</u>
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.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

Doc Code: TRACK1.REQ
Document Description: TrackOne Request

PTO/SB/424 (12-11)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Gurvinder Singh	Nonprovisional Application Number (if known):	
Title of Invention:	AUTOMATIC MULTIMEDIA UPLOAD FOR PUBLISHING DATA AND MULTIMEDIA CONTENT		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i), the prioritized examination fee set forth in 37 CFR 1.17(c), and if not already paid, the publication fee set forth in 37 CFR 1.18(d) have been filed with the request. The basic filing fee, search fee, examination fee, and any required excess claims and application size fees are filed with the request or have been already been paid.

2. The application contains or is amended to contain no more than four independent claims and no more than thirty total claims, and no multiple dependent claims.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. An executed oath or declaration under 37 CFR 1.63 is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /a tankha/	Date 05 June 2014
Name (Print/Typed) Ashok Tankha	Practitioner Registration Number 33802

***Note**: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required in accordance with 37 CFR 1.33 and 11.18. Please see 37 CFR 1.4(d) for the form of the signature. If necessary, submit multiple forms for more than one signature, 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.

SCORE Placeholder Sheet for IFW Content

Application Number: 14297616 Document Date: 06/05/2014

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.

- Drawings – Other than Black and White Line Drawings

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.

To access the documents in the SCORE database, refer to instructions below.

At the time of document entry (noted above):

- Examiners may access SCORE content via the eDAN interface.
- Other USPTO employees can bookmark the current SCORE URL (http://Score.uspto.gov/ScoreAccessWeb/).
- External customers may access SCORE content via the Public and Private PAIR interfaces.

Form Revision Date: September 30, 2013

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/297,616

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	70		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	300		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	22 minus 20 =	* 2	x 40 =	80	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4 minus 3 =	* 1	x 210 =	210			
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	1020		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 =	
AMENDMENT A	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT A	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT A	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($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT B	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT B	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT B	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.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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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
14/297,616	06/05/2014	2447	1020	CellSpin_04Con8_US	22	4

CONFIRMATION NO. 7021

Ashok Tankha
36 Greenleigh drive
Sewell, NJ 08080

FILING RECEIPT

"OC000000069064140"

Date Mailed: 06/17/2014

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)

Gurvinder Singh, Santa Clara, CA;
Marcos Klein, Mountain View, CA;
Vince Laviano, Alviso, CA;

Applicant(s)

CellSpinSoft Inc., San Jose, CA

Assignment For Published Patent Application

CellSpinSoft Inc., San Jose, CA

Power of Attorney:

Ashok Tankha--33802

Domestic Priority data as claimed by applicant

This application is a CON of 14/172,913 02/05/2014
which is a CON of 13/740,214 01/13/2013 PAT 8700790
which is a CON of 12/333,303 12/11/2008 PAT 8392591
which claims benefit of 61/017,202 12/28/2007

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 - A proper **Authorization to Permit Access to Application by Participating Offices** (PTO/SB/39 or its equivalent) has been received by the USPTO.

If Required, Foreign Filing License Granted: 06/16/2014

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/297,616**

Projected Publication Date: 09/25/2014

Non-Publication Request: No

Early Publication Request: Yes
**** SMALL ENTITY ****
Title

Automatic Multimedia Upload For Publishing Data And Multimedia Content

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: Yes

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.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

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www.uspto.gov

MAILED
JUN 24 2014
OFFICE OF PETITIONS

ASHOK TANKHA
36 GREENLEIGH DRIVE
SEWELL NJ 08080

Doc Code: TRACK1.GRANT

Decision Granting Request for Prioritized Examination (Track I or After RCE)	Application No.: 14/297,616

1. THE REQUEST FILED 6/5/14 IS **GRANTED.**

The above-identified application has met the requirements for prioritized examination
A. ☒ for an original nonprovisional application (Track I).
B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination.** The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:

A. filing a **petition for extension of time** to extend the time period for filing a reply;
B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims**, or a multiple dependent claim;
C. filing a **request for continued examination**;
D. filing a notice of appeal;
E. filing a request for suspension of action;
F. mailing of a notice of allowance;
G. mailing of a final Office action;
H. completion of examination as defined in 37 CFR 41.102; or
I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to Cheryl Gibson-Baylor at (571)272-3213, Office of Petitions. In his/her absence, calls may be directed to Brian W. Brown, (571)272-5338.

Cheryl Gibson-Baylor
/Cheryl Gibson-Baylor/
[*Signature*]

Petitions Paralegal Specialist
(Title)

U.S. Patent and Trademark Office
PTO-2298 (Rev. 02-2012)

PTO/AIA/26 (04-14)
Approved for use through 07/31/2016. 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.

TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT

Docket Number (Optional)
CellSpin_04Con8_US

In re Application of: Gurvinder Singh

Application No.: 14/297,616

Filed: 05 June 2014

For: Automatic Multimedia Upload For Publishing Data And Multimedia Content

The applicant, Cellspinsoft Inc., owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 8756336 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior patent** later:

expires for failure to pay a maintenance fee;
is held unenforceable;
is found invalid by a court of competent jurisdiction;
is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
has all claims canceled by a reexamination certificate;
is reissued; or
is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. ☐ The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

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

2. ☑ The undersigned is an attorney or agent of record. Reg. No. 33802

/a tankha/	10 July 2014
Signature	Date

Ashok Tankha
Typed or printed name

	856-266-5145
Title	Telephone Number

☑ Terminal disclaimer fee under 37 CFR 1.20(d) included.

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This collection of information is required by 37 CFR 1.321. 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 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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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.

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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:	14297616
Filing Date:	05-Jun-2014
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Filer:	Ashok Tankha
Attorney Docket Number:	CellSpin_04Con8_US
Filed as Small Entity	

Utility under 35 USC 111(a) Filing Fees

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($)
Miscellaneous:				
Statutory or Terminal Disclaimer	1814	1	160	160
		Total in USD ($)		**160**

Electronic Acknowledgement Receipt	
EFS ID:	19539902
Application Number:	14297616
International Application Number:	
Confirmation Number:	7021
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Correspondence Address:	Ashok Tankha - 36 Greenleigh drive - Sewell NJ 08080 US 856-266-5145 ash@ipprocurement.com
Filer:	Ashok Tankha
Filer Authorized By:	
Attorney Docket Number:	CellSpin_04Con8_US
Receipt Date:	10-JUL-2014
Filing Date:	05-JUN-2014
Time Stamp:	11:13:56
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$160

RAM confirmation Number	7616
Deposit Account	503291
Authorized User	TANKHA, ASHOK

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

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer Filed	CellSpin_04Con8_US_Terminal_Disclaimer.pdf	160057 f72bc2845b8a38d7bdb0a0da5aacde0403498a7c	no	2
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	29944 1d63ca237fd7ef03d29723b03cfa8136327881dd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	190001		

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.

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	14/297,616	SINGH ET AL.	

Document Code - DISQ	Internal Document – DO NOT MAIL

TERMINAL DISCLAIMER	☐ APPROVED	☒ DISAPPROVED
Date Filed : 7/10/14	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:

Janice Ford

Resubmit terminal along with a 3.73(c) statement.

U.S. Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US	7021

7590 07/14/2014

Ashok Tankha
36 Greenleigh drive
Sewell, NJ 08080

EXAMINER
NOORISTANY, SULAIMAN

ART UNIT	PAPER NUMBER
2478	

MAIL DATE	DELIVERY MODE
07/14/2014	PAPER

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.

PTOL-90A (Rev. 04/07)

Office Action Summary	Application No. 14/297,616	Applicant(s) SINGH ET AL.	
	Examiner SULAIMAN NOORISTANY	Art Unit 2478	AIA (First Inventor to File) 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 6/5/14.

☐ 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) 1-22 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) 1-22 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: _____.

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

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

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of parent Application No. 14109972. Although the conflicting claims are identical, they are not patentably distinct from each other because they are both similar…

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of parent Application No. 14273546. Although the conflicting claims are identical, they are not patentably distinct from each other because they are both similar…

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5-6, 10-11, 16-17, 21-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More specifically, the applicant fails to sufficiently point out or describe " the term *the content range* of said file data…. "

the terms "*layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite*"

The specification of this application under examination does not contain subject matter to implement limitations, as cited in the following claims. Claim 6 recites newly presented claim limitation the terms "*layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite*" and the term *the content range* of said file data…"

Examiner has reviewed the specification of this application under examination (and OCR whole document) and could not find support for the additional limitations as claimed.

Claims 5-6, 10-11, 16-17, 21-22 are rejected for similar reasons as stated above.

Specification Objection

The disclosure is objected to because of the following informalities: Examiner has reviewed the specification of this application under examination and could not find support for

the additional limitations as claimed "wherein said data transfer capabilities of said Bluetooth enabled mobile device are dependent on the limited processing capability of the mobile device internet connection the terms "*layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite*" and the term "*the content range* of said file data…" Appropriate correction is required.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 5 recites the segment identifier corresponds to *the content range* of said file data…

Claim 6 recites wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

The examiner can find no explicit or implicit definition or reason for performing these steps in the specification.

Remark:

As an initial matter, Examiner initiated an interview with Mr. Tankha to expedite prosecution of the present application. During the interview, an overview of the invention was presented and proposed claim amendments were discussed, which Examiner indicated appear to overcome the outstanding grounds of rejection and put the application in forward status. However, no formal agreement was reached during the interview.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sulaiman Nooristany whose telephone number is (571) 270-1929. The examiner can normally be reached on M-F from 9 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris, can be reached on (571) 272-3123. 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. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SULAIMAN NOORISTANY/

Primary Examiner, Art Unit 2478

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3	"14109972"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:33
L2	5345	h04l65/403.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:33
L3	2	2 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:33
L4	337	2 and (bluetooth or blue-tooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:34
L5	4	4 and (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/07/10 12:35
L6	0	"14171913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:39
L7	0	"14/171913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:39
S1	0	"13922219"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:04
S2	0	"13/922219"	US-PGPUB; USPAT; USOCR;	OR	ON	2013/08/08 17:05

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S3	4	"2003015790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S4	2	"20030015790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S5	5	"20030157960"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S6	0	"200300157960"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:06
S7	0	"13922219"	USPAT	OR	OFF	2013/08/09 10:04
S8	189979	bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:27
S9	15000	S8 and buffer$3 near6 (data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:27
S10	5	S9 and segment$3 near3 data near identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:28
S11	191138	bluetooth or blue-tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:38
S12	23	S11 and segment$3 near3 data near identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:38

S13	191138	(bluetooth or blue-tooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:46
S14	16	S13 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:47
S15	75	buffer and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:49
S16	191142	blue$tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:50
S17	1	S13 and buffer and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:50
S18	6	S13 and (reassembl$3 same segment$3 same Identifier)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:52
S19	68	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:01
S20	1	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) same bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:01
S21	67	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) and bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:02
S22	0	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) with bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:02

S23	0	"13740214"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:32
S24	0	"13/740214"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:33
S25	2	"12333303"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:33
S26	506531	(partition$1 or brak$3 near down or segment$3) same large (data or file$1 or content$1) same (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:51
S27	2030	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) same (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:51
S28	2	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) same (segment$1) same (bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:52
S29	15	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) and (segment$1) same (bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:53
S30	15	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) and (segment$1) same (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:54
S31	2405	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) and (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:10
S32	122	S31 and (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:10

S33	0	S32 and uder near6 (identifier$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S34	0	S32 and uder near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S35	35	S32 and user near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S36	3	S32 and user near6 (identif$4) same segment$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S37	61	S32 and (user or device) near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:14
S38	35	S35 and (user or device) near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:15
S39	2	"8027668".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:47
S40	3	"20090023428"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:48
S41	2	"20080109317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/09/19 15:53
S42	195282	(blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:56

S43	484	poll near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:57
S44	34	S43 and push near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:58
S45	0	S44 and S42	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:59
S46	5217	(poll or push) near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S47	426	S46 and (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S48	67	S43 and (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S49	0	S48 and push near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S50	195282	(blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:23
S51	161	S50 and (interrupt$3 near6 (data or packet$1)) same synch$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:28
S52	1	S50 and (interrupt$3 near6 (data or packet$1)) same synch$6 same segment$1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:29

S53	0	S51 and (synch$6 same resum$3 same transfer$3 same segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:40
S54	0	S50 and (synch$6 same resum$3 same transfer$3 same segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:40
S55	100	S50 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S56	79	S51 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S57	0	S51 and (synch$6 same resum$3 near6 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S58	0	S51 and (synch$6 same resum$3 near15 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S59	0	S51 and (synch$6 same resum$3 near20 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S60	0	S51 and (synch$6 same resum$3 near30 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S61	2601	(interrupt$3 near6 (data or packet$1)) same synch$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S62	155	S61 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44

S63	39	S61 and (synch$6 same resum$3 near6 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S64	1	S61 and (synch$6 same resum$3 near6 transfer$3 same segment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S65	0	S61 and (synch$6 same resum$3 near6 transfer$3 same last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:46
S66	78	S61 and (resum$3 near6 transfer$3 same last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:46
S67	0	S61 and (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:46
S68	0	S61 and (resum$3 near6 transfer$3 near15 last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S69	0	S61 and (resum$3 near6 transfer$3 near15 last near15 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S70	78	S61 and (resum$3 near6 transfer$3 same last near15 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S71	78	S61 and (resum$3 near6 transfer$3 same last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S72	77	S71 and bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47

S73	10	(interrupt$3 near6 (data or packet$1)) same (resum$3 near6 transfer$3 same last near15 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:48
S74	0	"13922227"	USPAT	OR	OFF	2014/01/03 16:28
S75	1	"13922227"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:28
S76	183133	(".in.Singh" or Klein or Laviano)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:29
S77	129628	(Singh or Klein or Laviano).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:29
S78	1120	S77 and blue$tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:29
S79	500	S78 and (user or device) near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:30
S80	208	S78 and ((user or device) near6 (identif$4)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:30
S81	3	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:31
S82	0	(709/230.ccls or "709"/$.ccls.).in. and ((resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment)))	USPAT	OR	ON	2014/01/03 16:33
S83	74809	(709/230.ccls or "709"/$.ccls.)	USPAT	OR	ON	2014/01/03 16:33
S84	74809	(709/230.ccls. or "709"/$.ccls.)	USPAT	OR	ON	2014/01/03 16:33
S85	11228	S84 and ((user or device) near6 (identif$4)).clm.	US-PGPUB; USPAT; USOCR;	OR	ON	2014/01/03 16:33

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S86	1287	S85 and blue$tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:33
S87	0	S86 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:34
S91	0	"14109972"	USPAT	OR	ON	2014/03/19 19:38
S92	0	"14/109972"	USPAT	OR	ON	2014/03/19 19:38
S93	5279	g06f15/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/19 19:38
S94	0	S93 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/03/19 19:39
S95	389	S93 and (bluetooth or blue-tooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/03/19 19:39
S96	0	S95 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) same bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/03/19 19:39
S97	10	S93 and (partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) same (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/19 19:39
S98	2	S93 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/19 19:40
S105	0	pair$3 near6 (short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near	US-PGPUB; USPAT	OR	ON	2014/06/11 13:18

		message				
S106	146	(short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:18
S107	0	establish$4 same pair$3 near devices same (short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:19
S108	146	(short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:19
S109	1	S108 and establish$4 same pair$3 near devices	US-PGPUB; USPAT	OR	ON	2014/06/11 13:19
S110	18	S108 and internet near connection	US-PGPUB; USPAT	OR	ON	2014/06/11 13:21
S111	2	S108 and internet near connection same resources	US-PGPUB; USPAT	OR	ON	2014/06/11 13:21
S112	79	negotiat$3 near6 internet near connection	US-PGPUB; USPAT	OR	ON	2014/06/11 13:48
S113	0	negotiat$3 near6 internet near connection same pair$3 near device$1	US-PGPUB; USPAT	OR	ON	2014/06/11 13:48
S114	38	negotiat$3 near6 internet near connection same device$1	US-PGPUB; USPAT	OR	ON	2014/06/11 13:48
S115	1	negotiat$3 near6 internet near connection same (short near range or bluetooth)	US-PGPUB; USPAT	OR	ON	2014/06/11 13:49
S116	1	"14172913"	US-PGPUB; USPAT	OR	ON	2014/06/11 14:03
S117	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (short near range)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/11 14:19
S118	3126	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection)	USPAT	OR	ON	2014/06/11 14:24
S119	175	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection) same (short near range or bluetooth)	USPAT	OR	ON	2014/06/11 14:24
S120	2	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection) same (short near range or bluetooth) with "100" near meter	USPAT	OR	ON	2014/06/11 14:25
S121	3	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection) same (short near range or bluetooth) with "100" near meter	US-PGPUB; USPAT	OR	ON	2014/06/11 14:25
S130	5673	g06f15/16.cpc.	US-PGPUB; USPAT; USOCR;	OR	ON	2014/06/12 10:09

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S131	471	S130 and (bluetooth or short near range)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:09
S132	5	S131 and ("100" near meter)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:10
S133	19	S131 and (pair$3 near6 devices)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:16
S134	0	S131 and (pair$3 near6 devices) same internet near access	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:17
S135	3	S133 and internet near access	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:17
S136	1	"14172913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:59

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S88	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/01/03 16:32
S89	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/01/03 16:32
S90	0	(Singh or Klein or Laviano).in. and ((resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/01/03 16:32
S99	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/03/19 19:37
S100	0	"14109972"	USPAT;	OR	ON	2014/03/19

			UPAD			19:38
S101	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S102	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S103	0	(Singh or Klein or Laviano).in. and ((resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S104	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S122	16352	(Singh or Klein or Laviano).in.	USPAT; UPAD	OR	ON	2014/06/11 14:18
S123	32	(Singh or Klein or Laviano).in. and (pair$3 or establish$3) same (user$1 or device$1) near6 (identif$4).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:20
S124	2	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:20
S125	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:21
S126	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (internet near connectio)).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:22
S127	0	(Singh or Klein or Laviano).in. and (pair$3 or ESTABLISH$3) same (user or device) near6 (identif$4) same (internet near connectio).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:23
S128	0	(Singh or Klein or Laviano).in. and (pair$3 or ESTABLISH$3) same (user or device) same (internet near connectio).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:23
S129	3	(Singh or Klein or Laviano).in. and (pair$3 or ESTABLISH$3) same (user or device) same (internet near connection).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:23

7/10/2014 12:55:40 PM
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BIB DATA SHEET

CONFIRMATION NO. 7021

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/297,616	06/05/2014 RULE	709	2478	CellSpin_04Con8_US

APPLICANTS
CellSpinSoft Inc., San Jose, CA, Assignee (with 37 CFR 1.172 Interest);

INVENTORS
Gurvinder Singh, Santa Clara, CA;
Marcos Klein, Mountain View, CA;
Vince Laviano, Alviso, CA;

**** CONTINUING DATA ****************************
This application is a CON of 14/172,913 02/05/2014
which is a CON of 13/740,214 01/13/2013 PAT 8700790
which is a CON of 12/333,303 12/11/2008 PAT 8392591
which claims benefit of 61/017,202 12/28/2007

**** FOREIGN APPLICATIONS ****************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
06/16/2014

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☑ Yes ☐ No Verified and Acknowledged /SULAIMAN NOORISTANY/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CA	5	22	4

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TITLE
Automatic Multimedia Upload For Publishing Data And Multimedia Content

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

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

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

CLAIM		DATE								
Final	Original	07/10/2014								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
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	20	✓								
	21	✓								
	22	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

CPC- SEARCHED		
Symbol	**Date**	**Examiner**
H04I63/403.cpc.	7/10/2014	SN

CPC COMBINATION SETS - SEARCHED		
Symbol	**Date**	**Examiner**

US CLASSIFICATION SEARCHED			
Class	**Subclass**	**Date**	**Examiner**

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
EAST update search	7/10/2014	SN

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US	7021

7590 07/24/2014

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EXAMINER
NOORISTANY, SULAIMAN

ART UNIT	PAPER NUMBER
2478	

MAIL DATE	DELIVERY MODE
07/24/2014	PAPER

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.

PTOL-90A (Rev. 04/07)

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
14/297,616	05 June, 2014	SINGH ET AL.	CellSpin_04Con8_US

		EXAMINER	
Ashok Tankha 36 Greenleigh drive Sewell, NJ 08080		ANTHONY LOVER	
		ART UNIT	PAPER
		OPIM	20140722

DATE MAILED:

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

Commissioner for Patents

Attached is a communication to applicant explaining that the instant application is being identified as a pre-AIA application despite applicant's statement under 37 CFR 1.55 or 1.78 made in the instant application, either on the Application Data Sheet (ADS) or in an otherwise filed paper.

PTO-90C (Rev.04-03)

Application Identified as a Pre-AIA Application Despite the 37 CFR 1.55 or 1.78 Statement of Record

The statement under 37 CFR 1.55 or 1.78 ("the 1.55/1.78 statement") and the domestic benefit/national stage information in this application conflict as to whether this application is to be examined under the AIA (First Inventor to File) or pre-AIA (First to Invent) law.

This application, with a filing date on or after March 16, 2013, contains the 1.55/1.78 statement indicating that this application should be examined under the AIA (First Inventor to File). This statement was either (1) on the Application Data Sheet (ADS) by virtue of the 1.55/1.78 statement for AIA (First Inventor to File) Transition Applications check box being selected or (2) in an otherwise filed paper. The 1.55/1.78 statement provided:

> This application * * * contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

However, this application is separately identified in the Domestic Benefit/National Stage Information section of the ADS as a continuation (CON) or divisional (DIV) of an application filed before March 16, 2013, indicating that this application should be examined under pre-AIA (First to Invent) law because it does not contain, or did not contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013. DUE TO THIS APPLICATION BEING IDENTIFIED AS A CONTINUATION OR DIVISIONAL OF AN APPLICATION FILED BEFORE MARCH 16, 2013, THIS APPLICATION IS BEING IDENTIFIED AS A PRE-AIA (FIRST TO INVENT) APPLICATION DESPITE THE 1.55/1.78 STATEMENT OF RECORD.

Accordingly, this application is/will be examined under pre-AIA (First to Invent) law; all forthcoming Office actions on the merits will be labeled "**AIA (First Inventor to File) Status: No**" (see upper right box on form PTOL-37/37D and/or PTOL-326/326AE).

Moreover, if applicant has received any Office action on the merits, which identified the instant application as "**AIA (First Inventor to File) Status**: **Yes**," said Status information was in error and is hereby corrected to "**No**" to indicate that that the present application is a pre-AIA (First to Invent) application.

NO RESPONSE TO THIS COMMUNICATION IS REQUIRED UNLESS APPLICANT BELIEVES THAT THE APPLICATION CONTAINS, OR EVER CONTAINED A CLAIM TO A CLAIMED INVENTION HAVING AN EFFECTIVE FILING DATE ON OR AFTER MARCH 16, 2013 AND IS AN AIA (FIRST INVENTOR TO FILE) APPLICATION.

If applicant believes that the application is an AIA (First Inventor to File) application, applicant must file a corrected ADS (with appropriate markings as set forth in 37 CFR 1.76(c)(2)) identifying the instant application as a **continuation-in-part (CIP)** application in the Domestic Benefit/National Stage Information section of the ADS and request in writing that the application

be examined under the AIA (First Inventor to File) because the identification of the application as a CON/DIV application on filing was an error. IN THIS SITUATION, APPLICANT'S RESPONSE IS DUE WITHIN TWO MONTHS OF THE MAILING DATE OF THIS COMMUNICATION; THE RESPONSE PERIOD IS NOT EXTENDABLE UNDER 37 CFR 1.136.

Questions regarding this communication may be directed to a TC AIA Specialist as appropriate.

Technology Center	**TC AIA Specialist**	**Contact Information**
1600, 1700, 2900	Kathleen Bragdon	(571) 272-0931
2100, 2400	Christopher Grant	(571) 272-7294
2600, 2800	Cassandra Spyrou	(571) 272-1624
3600, 3700	Tom Hughes	(571) 272-4357

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re. application of:
Application No.: 14/297,616
Filed: 06/05/2014
Applicant: Gurvinder Singh
Title: Automatic Multimedia Upload For Publishing Data And Multimedia Content

Examiner: Nooristany, Sulaiman
Art Unit: 2478
Att. Docket No.: CellSpin_04Con8_US

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

Response to Office Action

Examiner Nooristany:

In response to the non-final office action dated July 14, 2014, please consider the amendment and remarks submitted in this response:

Amendment to the Claims: There are no amendments to the claims.

Remarks begin on page 2 of this response.

Attachments:
1. Transmittal Form, PTO/SB/21; and
2. Terminal disclaimer form to obviate a Provisional Double Patenting rejection over a pending Second Application, form PTO/SB/25;
3. Exhibits A-F; and
4. Payment of the following fee:
   -$160 for the terminal disclaimer;

The Director is hereby authorized to charge any underpayment of fee or any other fee that may be required to deposit account # 503291.

Remarks

The Present Invention and Pending Claims

This invention relates generally to distribution of multimedia content. More particularly, this invention relates to pairing a data capture device in conjunction with a mobile device for automatically transferring data and multimedia content to one or more websites simultaneously.

Summary of the Office Action

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of parent Application No. 14109972. Although the conflicting claims are identical, they are not patentably distinct from each other because they are both similar.

Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of parent Application No. 14273546. Although the conflicting claims are identical, they are not patentably distinct from each other because they are both similar.

Claims 5-6, 10-11, 16-17 and 21-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The Specification is objected because of informalities.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter.

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

The Patent Office issued a letter on July 21, 2014 stating that the present application will be examined under the provisions of pre-AIA law, due to which applicant assumes that the above assertion is no longer valid.

The office action further states: "**Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of parent Application No. 14109972. Although the conflicting claims are identical, they are not patentably distinct from each other because they are both similar.**"

In reply, applicant submits that a terminal disclaimer has already been filed on 10 July, 2014 referencing application no. 14/109,972 (now Pat no. 8756336). Accordingly, applicant respectfully requests the above rejection be withdrawn.

The office action further states: "**Claims 1-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of parent Application No. 14273546. Although the conflicting claims are identical, they are not patentably distinct from each other because they are both similar"**

In response, a terminal disclaimer is filed herewith to overcome the non-statutory double patenting rejection of claims in the instant application over the claims 1-30 of application no. 14/273,546. Accordingly, applicant respectfully requests the above rejection be withdrawn.

The office action further states: "**Claims 5-6, 10-11, 16-17 and 21-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had**

possession of the claimed invention. More specifically, the applicant fails to sufficiently point out or describe
the terms "*layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite*" as recited in claim 5; and
the term "*the content range of said file data….*" as recited in claim 6.
Claims 10-11, 16-17 and 21-22 are rejected for similar reasons as stated above."

Issue 1:

In response to the rejection of the terms "***layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite***" in claims 5, 10, 16 and 21, applicant submits that there is adequate support in the specification for the above terms.

Lines 11-16 on page 16 of the applicant's application, reproduced below; explain the nature of the protocols used to upload multimedia data:
*"The **transport protocol** that is used between the client application 203 and the publishing service 401 **may be hypertext transfer protocol (HTTP) or extensible markup language-remote procedure calls (XML-RPC)**……."*

It is well known that both HTTP and XML-RPC are application layer protocols. The following Exhibits clearly illustrate that both HTTP and XML-RPC (which uses HTTP) are application layer protocols:

Exhibit A, which is also available in:
http://en.wikipedia.org/wiki/HyperText_Transfer_Protocol
Exhibit B, which is also available in:
http://en.wikipedia.org/wiki/XML-RPC

Further, **application layer is defined** as an abstraction layer reserved for communication protocols and methods designed for process-to-process communications across an Internet Protocol (IP) computer network. In the OSI model, the application layer is defined as being the user interface – responsible for displaying the information received to the user.

See **Exhibit C**, also available in: http://en.wikipedia.org/wiki/Application_layer; and
See **Exhibit D**, also available in: http://en.wikipedia.org/wiki/OSI_model

As illustrated in Exhibits C and D, the application layer is the fourth layer in the Internet Protocol (IP) suite and the seventh layer in the OSI model.

Figure shown below illustrates the application layer in the OSI model and the IP model:

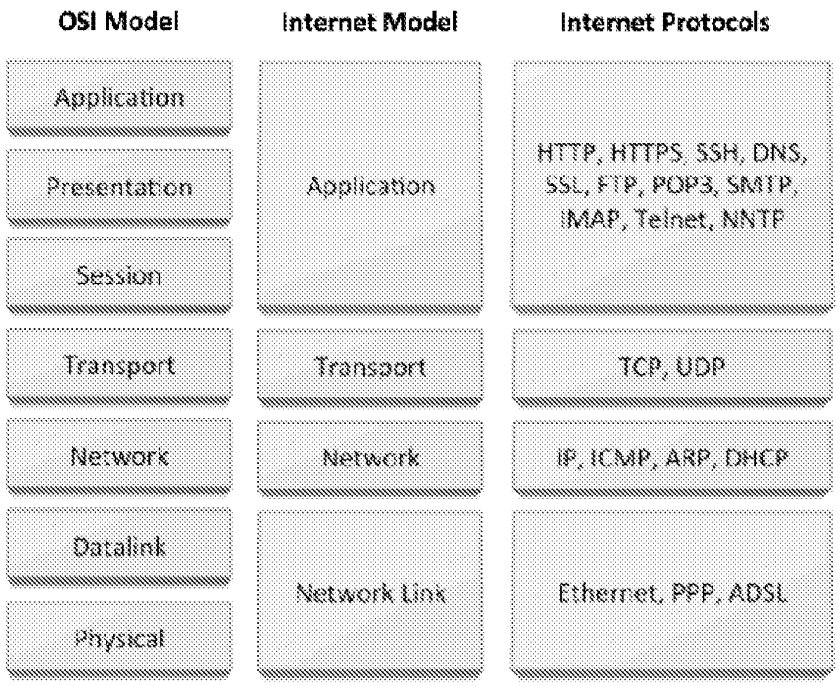
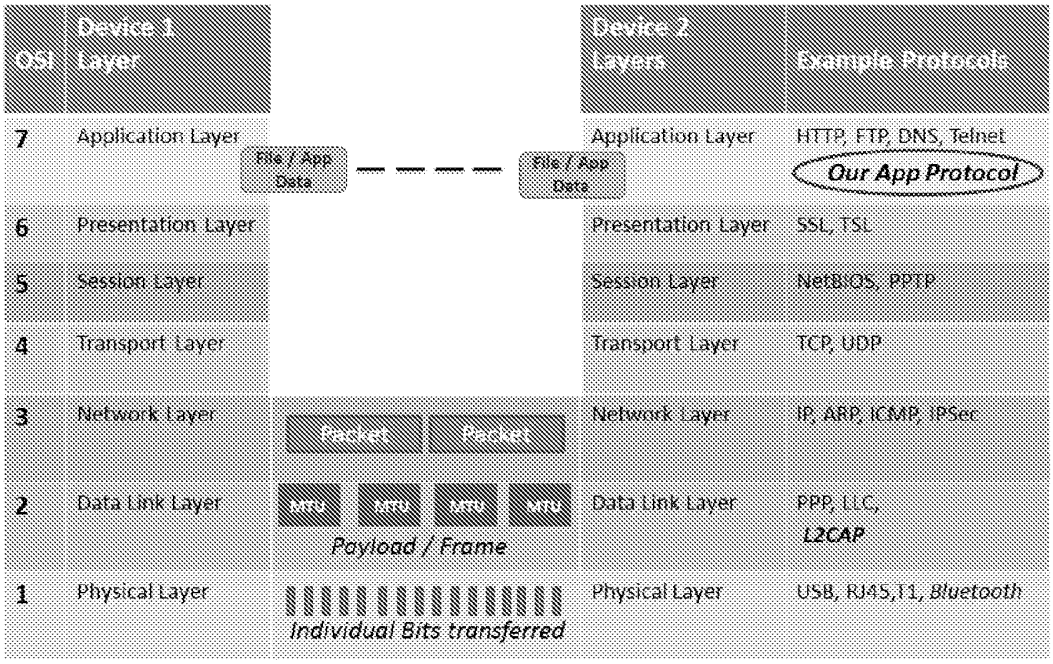


Figure shown below illustrates that the data exchange between applications, which use HTTP, DNS, etc., occurs in the Application Layer:



Furthermore, although not claimed, the application discloses a client application on the mobile device. As illustrated in Exhibit D, application layer *interacts with software applications,* like the applicant disclosed client application, that implement a communicating component.

In view of the above reasoning, applicant respectfully requests the above rejection of claims 5, 10, 16 and 21 be reconsidered and withdrawn.

Issue #2:

In response to the rejection of the term "***the content range of said file data….***" in claims 6, 11, 17 and 22, applicant again submits that there is adequate support in the specification for the above terms.

Argument 1:

The term **"content" appears about 90 times** in the application description and the word ***"range" is a qualifier*** to the word "content", similar to:

1. Content "Size"
2. Content "Type"
3. Content "Length"
4. Content "Name"
5. Content "File"
6. Content "Data"
7. "Multimedia" Content
8. ***Similarly, Content "range" and range is a qualifier for the content.***

The word ***"range" appears once*** in the application description and "range" is used as a *qualifier* in the application description text "short-**range** radio frequency" *qualifying the radio frequency* (see lines 28-29 on page 5 of the applicant's application).

Argument 2:

Lines 21-24 on page 12 of the applicant's application states:

> *"The segmentation module 203i generates segment identifiers and tags the data segments with the segment identifiers. The* **segment identifiers may, for example, be one or more of** ***transaction identifiers, sequence numbers, and timestamps****."*

It is well known that segment identifier is a ***"string"*** **that is used to** ***identify a particular data-segment-of-the-file*** **being uploaded to the web server.** These strings (*segment identifiers - transaction identifiers, timestamp, etc)* are used by the web server for storing/reassembling the file.

Just to state as a matter of fact, the segment identifier "timestamp" listed as an example is also a type of "string".

The "string" formats used to represent date and time i.e., timestamp a particular data is shown in the following exhibits:

Exhibit E, also available in: http://en.wikipedia.org/wiki/ISO_8601 illustrates an example of *the timestamp "String" format*, as shown below:
Date and time expressed according to ISO 8601:
2014-07-28T06:07:34+00:00
2014-07-28T06:07:34Z

Exhibit F, also available in: http://www.w3.org/TR/NOTE-datetime illustrates another example of *the timestamp "String" format*, as shown below:

1994-11-05T08:15:30-05:00 corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time.
1994-11-05T13:15:30Z corresponds to the same instant.

As the name suggests ***Transaction identifier*** *can be any "**string**" that **helps facilitate** the upload and reassembly **transaction** of the segmented content transfer. Content range may be one of the transaction identifier "string".*

Consider the following example: Let us assume we have *5,000,000 byte file* to segment on the mobile device in 10 segments. Let us assume in this case all 10 segments are of same size (it may be different in other cases).

Segment identifier "string" generated for each data segment of the file is sent along with the corresponding data segment to the remote web server. In some cases these **segment identifiers - transaction identifiers** ***strings*** may be represented as ***strings*** listed below:

	Transaction Identifiers **Example 1**	Transaction Identifiers **Example 2**

Segment 1 identifier	*byte 0-500,000*	*byte 0-500,000/5,000,000*
Segment 2 identifier	*byte 500,001-1,000,000*	*byte 500,001-1,000,000/5,000,000*
Segment 3 identifier	*byte 1,000,001-1,500,000*	*byte 1,000,001-1,500,000/5,000,000*
Segment 4 identifier	*byte 1,500,001-2,000,000*	*byte 1,500,001-2,000,000/5,000,000*
Segment 5 identifier	*byte 2,000,001-2,500,000*	*byte 2,000,001-2,500,000/5,000,000*
Segment 6 identifier	*byte 2,500,001-3,000,000*	*byte 2,500,001-3,000,000/5,000,000*
Segment 7 identifier	*byte 3,000,001-3,500,000*	*byte 3,000,001-3,500,000/5,000,000*
Segment 8 identifier	*byte 3,500,001-4,000,000*	*byte 3,500,001-4,000,000/5,000,000*
Segment 9 identifier	*byte 4,000,001-4,500,000*	*byte 4,000,001-4,500,000/5,000,000*
Segment 10 identifier	*byte 4,500,001-5,000,000*	*byte 4,500,001-5,000,000/5,000,000*

In both Example 1 & Example 2 for all 10 data segments**, the segment identifiers - transaction identifiers strings are the same as the "content range" of that particular data segment of the file being uploaded.** The only difference between Example 1 and Example 2 is, in Example 2 total length of the content file is also used in the string.

And these 10 segment identifiers - transaction identifiers (*strings*) are used by the back end for efficiently storing/reassembling the file.

These examples clearly illustrate that ***segment identifiers*** comprising ***transaction identifiers****, sequence numbers, and timestamps* are "**strings" used to *identify a particular data-segment-of-the-file* being uploaded to the web server.** *And "Content range" may be one of the transaction identifier "string"* element.

Thus, one of the "transaction identifier string" may be "content range" of the file segment being uploaded. Furthermore, the "transaction identifier string" can be a generic string and the format of the "transaction identifier string" can be negotiated between the Bluetooth enabled mobile device and the web server. *The format may be for example, "filename-start byte no.-end byte no."; "start byte no.-end byte no/ filesize"; etc.*

Argument 3:

Segment-identifier for a given data-segment is nothing but **a string-to-identify-a-particular-data-segment** and one of the best ways to identify a given data segment is to specify and include the **"starting-byte-number and the ending-byte-number of the particular file-data-segment"** in the segment-identifier string. In this format, the **starting-byte-number and the ending-byte-number is the Content Range of the data-segment.**

For the reasons stated above, applicant respectfully requests the rejection of claims 5-6, 10-11, 16-17 and 21-22 under 35 U.S.C. 112 be reconsidered and withdrawn.

The office action also states: "**The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:**
Claim 5 recites the segment identifier corresponds to the content range of said file data...
Claim 6 recites wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.
The examiner can find no explicit or implicit definition or reason for performing these steps in the specification."

Regarding the rejection of claim 5 (and equivalent claims 19, 16 and 21) and claim 6 (and equivalent claims 11, 17 and 22), applicant has provided clear reasoning on pages 15-19 of this response which enables a person having ordinary skill in the art to infer the reason for performing these steps in the specification.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. In the interest of compact prosecution, if the prosecution of the application can be

advanced or if a claim may be made potentially allowable by an Examiner's amendment, applicant requests Examiner Nooristany to call the undersigned with the proposed amendment.

Respectfully submitted,

Date: Aug 05, 2014

/a tankha/
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TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION

Docket Number (Optional)
CellSpin_04Con8_US

In re Application of: Gurvinder Singh, Marcos Klein and Vince Laviano

Application No.: 14/297,616

Filed: 06/05/2014

For: Automatic Multimedia Upload For Publishing Data And Multimedia Content

The owner*, Cellspinsoft Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending **reference** Application Number 14/273,546, filed 09 May 2014, as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the **reference** application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said **reference** application, "as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application," in the event that: any such patent: granted on the pending **reference** application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☑ The undersigned is an attorney or agent of record. Reg. No. 33802

/a tankha/ — Signature
08/05/2014 — Date

Ashok Tankha
Typed or printed name

856-266-5145
Telephone Number

☑ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this statement. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. 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 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.

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.

Hypertext Transfer Protocol

From Wikipedia, the free encyclopedia
(Redirected from HyperText Transfer Protocol)

The **Hypertext Transfer Protocol** (**HTTP**) is an application protocol for distributed, collaborative, hypermedia information systems.[1] HTTP is the foundation of data communication for the World Wide Web.

Hypertext is structured text that uses logical links (hyperlinks) between nodes containing text. HTTP is the protocol to exchange or transfer hypertext.

The standards development of HTTP was coordinated by the Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C), culminating in the publication of a series of Requests for Comments (RFCs), most notably RFC 2616 (June 1999), which defines HTTP/1.1, the version of HTTP in common use.

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Technical overview

HTTP functions as a request-response protocol in the client-server computing model. A web browser, for example, may be the *client* and an application running on a computer hosting a web site may be the *server*. The client submits an HTTP *request* message to the server. The server, which provides *resources* such as HTML files and other content, or performs other functions on behalf of the client, returns a *response* message to the client. The response contains completion status information about the request and may also contain requested content in its message body.

URL beginning with the HTTP scheme and the WWW domain name label.

A web browser is an example of a *user agent* (UA). Other types of user agent include the indexing software used by search providers (web crawlers), voice browsers, mobile apps, and other software that accesses, consumes, or displays web content.

HTTP is designed to permit intermediate network elements to improve or enable communications between clients and servers. High-traffic websites often benefit from web cache servers that deliver content on behalf of upstream servers to improve response time. Web browsers cache previously accessed web resources and reuse them when possible to reduce network traffic. HTTP proxy servers at private network boundaries can facilitate communication for clients without a globally routable address, by relaying messages with external servers.

HTTP is an application layer protocol designed within the framework of the Internet Protocol Suite. Its definition presumes an underlying and reliable transport layer protocol,[2] and Transmission Control Protocol (TCP) is commonly used. However HTTP can use unreliable protocols such as the User Datagram Protocol (UDP), for example in Simple Service Discovery Protocol (SSDP).

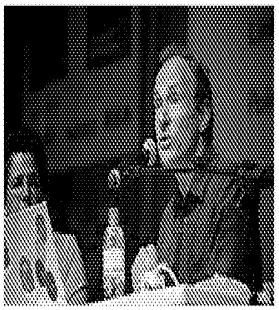
HTTP resources are identified and located on the network by Uniform Resource Identifiers (URIs)—or, more specifically, Uniform Resource Locators (URLs)—using the `http` or `https` URI schemes. URIs and hyperlinks in Hypertext Markup Language (HTML) documents form *webs* of inter-linked hypertext documents.

HTTP/1.1 is a revision of the original HTTP (HTTP/1.0). In HTTP/1.0 a separate connection to the same server is made for every resource request. HTTP/1.1 can reuse a connection multiple times to download images, scripts, stylesheets, *etc* after the page has been delivered. HTTP/1.1 communications therefore experience less latency as the establishment of TCP connections presents considerable overhead.

History

The term HyperText was coined by Ted Nelson in 1965 in the Xanadu Project, which was in turn inspired by Vannevar Bush's vision (1930's) of the microfilm-based information retrieval and management "memex" system described in his essay As We May Think (1945). Tim Berners-Lee and his team

are credited with inventing the original HTTP along with HTML and the associated technology for a web server and a text-based web browser. Berners-Lee first proposed the "WorldWideWeb" project in 1989 — now known as the World Wide Web. The first version of the protocol had only one method, namely GET, which would request a page from a server.[3] The response from the server was always an HTML page.[4]


Tim Berners-Lee

The first documented version of HTTP was **HTTP V0.9 (http://www.w3.org/pub/WWW/Protocols/HTTP/AsImplemented.html)** (1991). Dave Raggett led the HTTP Working Group (HTTP WG) in 1995 and wanted to expand the protocol with extended operations, extended negotiation, richer meta-information, tied with a security protocol which became more efficient by adding additional methods and header fields.[5][6] RFC 1945 officially introduced and recognized HTTP V1.0 in 1996.

The HTTP WG planned to publish new standards in December 1995[7] and the support for pre-standard HTTP/1.1 based on the then developing RFC 2068 (called HTTP-NG) was rapidly adopted by the major browser developers in early 1996. By March 1996, pre-standard HTTP/1.1 was supported in Arena,[8] Netscape 2.0,[8] Netscape Navigator Gold 2.01,[8] Mosaic 2.7, Lynx 2.5, and in Internet Explorer 2.0. End-user adoption of the new browsers was rapid. In March 1996, one web hosting company reported that over 40% of browsers in use on the Internet were HTTP 1.1 compliant. That same web hosting company reported that by June 1996, 65% of all browsers accessing their servers were HTTP/1.1 compliant.[9] The HTTP/1.1 standard as defined in RFC 2068 was officially released in January 1997. Improvements and updates to the HTTP/1.1 standard were released under RFC 2616 in June 1999.

In 2007, the **HTTPbis Working Group (http://trac.tools.ietf.org/wg/httpbis/trac/wiki)** was formed, in part, to revise and clarify the HTTP/1.1 spec. In June 2014, the WG released an updated six-part specification obsoleting RFC 2616:

- RFC 7230 - HTTP/1.1: Message Syntax and Routing
- RFC 7231 - HTTP/1.1: Semantics and Content
- RFC 7232 - HTTP/1.1: Conditional Requests
- RFC 7233 - HTTP/1.1: Range Requests
- RFC 7234 - HTTP/1.1: Caching
- RFC 7235 - HTTP/1.1: Authentication

HTTP session

An HTTP session is a sequence of network request-response transactions. An HTTP client initiates a request by establishing a Transmission Control Protocol (TCP) connection to a particular port on a server (typically port 80; see List of TCP and UDP port numbers). An HTTP server listening on that port waits for a client's request message. Upon receiving the request, the server sends back a status line, such as "HTTP/1.1 200 OK", and a message of its own. The body of this message is typically the requested resource, although an error message or other information may also be returned.[1]

Request methods

HTTP defines methods (sometimes referred to as *verbs*) to indicate the desired action to be performed on the identified resource. What this resource

represents, whether pre-existing data or data that is generated dynamically, depends on the implementation of the server. Often, the resource corresponds to a file or the output of an executable residing on the server. The HTTP/1.0 specification[10] defined the GET, POST and HEAD methods and the HTTP/1.1 specification[11] added 5 new methods: OPTIONS, PUT, DELETE, TRACE and CONNECT. By being specified in these documents their semantics are well known and can be depended upon. Any client can use any method and the server can be configured to support any combination of methods. If a method is unknown to an intermediate it will be treated as an unsafe and non-idempotent method. There is no limit to the number of methods that can be defined and this allows for future methods to be specified without breaking existing infrastructure. For example, WebDAV defined 7 new methods and RFC 5789 specified the PATCH method.

An HTTP 1.1 request made using telnet. The request, response headers and response body are highlighted.

GET

Requests a representation of the specified resource. Requests using GET should only retrieve data and should have no other effect. (This is also true of some other HTTP methods.)[1] The W3C has published guidance principles on this distinction, saying, "Web application design should be informed by the above principles, but also by the relevant limitations."[12] See safe methods below.

HEAD

Asks for the response identical to the one that would correspond to a GET request, but without the response body. This is useful for retrieving meta-information written in response headers, without having to transport the entire content.

POST

Requests that the server accept the entity enclosed in the request as a new subordinate of the web resource identified by the URI. The data POSTed might be, as examples, an annotation for existing resources; a message for a bulletin board, newsgroup, mailing list, or comment thread; a block of data that is the result of submitting a web form to a data-handling process; or an item to add to a database.[13]

PUT

Requests that the enclosed entity be stored under the supplied URI. If the URI refers to an already existing resource, it is modified; if the URI does not point to an existing resource, then the server can create the resource with that URI.[14]

DELETE

Deletes the specified resource.

TRACE

Echoes back the received request so that a client can see what (if any) changes or additions have been made by intermediate servers.

OPTIONS

Returns the HTTP methods that the server supports for the specified URL. This can be used to check the functionality of a web server by requesting '*' instead of a specific resource.

CONNECT

Converts the request connection to a transparent TCP/IP tunnel, usually to facilitate SSL-encrypted communication (HTTPS) through an unencrypted HTTP proxy.[15][16] See HTTP CONNECT Tunneling.

PATCH

Is used to apply partial modifications to a resource.[17]

HTTP servers are required to implement at least the GET and HEAD methods[18] and, whenever possible, also the OPTIONS method.

Safe methods

Some of the methods (for example, HEAD, GET, OPTIONS and TRACE) are defined as *safe*, which means they are intended only for information retrieval and should not change the state of the server. In other words, they should not have side effects, beyond relatively harmless effects such as logging, caching, the serving of banner advertisements or incrementing a web counter. Making arbitrary GET requests without regard to the context of the application's state should therefore be considered safe. By contrast, methods such as POST, PUT, DELETE and PATCH are intended for actions that may cause side effects either on the server, or external side effects such as financial transactions or transmission of email. Such methods are therefore not usually used by conforming web robots or web crawlers; some that do not conform tend to make requests without regard to context or consequences. Despite the prescribed safety of *GET* requests, in practice their handling by the server is not technically limited in any way. Therefore, careless or deliberate programming can cause non-trivial changes on the server. This is discouraged, because it can cause problems for web caching, search engines and other automated agents, which can make unintended changes on the server.

Idempotent methods and web applications

Methods PUT and DELETE are defined to be idempotent, meaning that multiple identical requests should have the same effect as a single request (note that idempotence refers to the state of the system after the request has completed, so while the action the server takes (e.g. deleting a record) or the response code it returns may be different on subsequent requests, the system state will be the same every time). Methods GET, HEAD, OPTIONS and TRACE, being prescribed as safe, should also be idempotent, as HTTP is a stateless protocol.[1] In contrast, the POST method is not necessarily idempotent, and therefore sending an identical POST request multiple times may further affect state or cause further side effects (such as financial transactions). In some cases this may be desirable, but in other cases this could be due to an accident, such as when a user does not realize that their action will result in sending another request, or they did not receive adequate feedback that their first request was successful. While web browsers may show alert dialog boxes to warn users in some cases where reloading a page may re-submit a POST request, it is generally up to the web application to handle cases where a POST request should not be submitted more than once. Note that whether a method is idempotent is not enforced by the protocol or web server. It is perfectly possible to write a web application in which (for example) a database insert or other non-idempotent action is triggered by a GET or other request. Ignoring this recommendation, however, may result in undesirable consequences, if a user agent assumes that repeating the same request is safe when it isn't.

Security

Implementing methods such as TRACE, TRACK and DEBUG are considered potentially insecure by some security professionals because attackers can use them to gather information or bypass security controls during attacks. Security software tools such as Tenable Nessus and Microsoft UrlScan Security Tool report on the presence of these methods as being security issues.[19] TRACK and DEBUG are not valid HTTP 1.1 verbs.[20]

Status codes

In HTTP/1.0 and since, the first line of the HTTP response is called the *status line* and includes a numeric *status code* (such as "404") and a textual *reason phrase* (such as "Not Found"). The way the user agent handles the response primarily depends on the code and secondarily on the response headers. Custom status codes can be used since, if the user agent encounters a code it does not recognize, it can use the first digit of the code to determine the general class of the response.[21]

Also, the standard *reason phrases* are only recommendations and can be replaced with "local equivalents" at the web developer's discretion. If the status code indicated a problem, the user agent might display the *reason phrase* to the user to provide further information about the nature of the problem. The standard also allows the user agent to attempt to interpret the *reason phrase*, though this might be unwise since the standard explicitly specifies that status codes are machine-readable and *reason phrases* are human-readable. HTTP status code is primarily divided into five groups for better explanation of request and responses between client and server as named: Informational 1XX, Successful 2XX, Redirection 3XX, Client Error 4XX and Server Error 5XX.

Persistent connections

In HTTP/0.9 and 1.0, the connection is closed after a single request/response pair. In HTTP/1.1 a keep-alive-mechanism was introduced, where a connection could be reused for more than one request. Such *persistent connections* reduce request latency perceptibly, because the client does not need to re-negotiate the TCP 3-Way-Handshake connection after the first request has been sent. Another positive side effect is that in general the connection becomes faster with time due to TCP's slow-start-mechanism.

Version 1.1 of the protocol also made bandwidth optimization improvements to HTTP/1.0. For example, HTTP/1.1 introduced chunked transfer encoding to allow content on persistent connections to be streamed rather than buffered. HTTP pipelining further reduces lag time, allowing clients to send multiple requests before waiting for each response. Another improvement to the protocol was byte serving, where a server transmits just the portion of a resource explicitly requested by a client.

HTTP session state

HTTP is a stateless protocol. A stateless protocol does not require the HTTP server to retain information or status about each user for the duration of multiple requests. However, some web applications implement states or server side sessions using for instance HTTP cookies or Hidden variables within web forms.

Encrypted connections

The most popular way of establishing an encrypted HTTP connection is HTTP Secure.

Two other methods for establishing an encrypted HTTP connection also exist, called Secure Hypertext Transfer Protocol and the HTTP/1.1 Upgrade header. Browser support for these latter two is, however, nearly non-existent; so HTTP Secure is the dominant method of establishing an encrypted HTTP connection.[22]

Request message

The request message consists of the following:

- A request line, for example `GET /images/logo.png HTTP/1.1`, which requests a resource called `/images/logo.png` from the server.
- Request Headers, such as `Accept-Language: en`
- An empty line.
- An optional message body.

The request line and headers must all end with <CR><LF> (that is, a carriage return character followed by a line feed character). The empty line must consist of only <CR><LF> and no other whitespace.[23] In the HTTP/1.1 protocol, all headers except Host are optional.

A request line containing only the path name is accepted by servers to maintain compatibility with HTTP clients before the HTTP/1.0 specification in RFC 1945.[24]

Response message

The response message consists of the following:

- A Status-Line, which include the status code and reason message. (e.g., `HTTP/1.1 200 OK`, which indicates that the client's request succeeded)
- Response Headers, such as `Content-Type: text/html`
- An empty line
- An optional message body

The Status-Line and headers must all end with <CR><LF> (a carriage return followed by a line feed). The empty line must consist of only <CR><LF> and no other whitespace.[23]

Example session

Below is a sample conversation between an HTTP client and an HTTP server running on www.example.com, port 80.

Client request

```
GET /index.html HTTP/1.1
Host: www.example.com
```

A client request (consisting in this case of the request line and only one header) is followed by a blank line, so that the request ends with a double newline, each in the form of a carriage return followed by a line feed. The "Host" header distinguishes between various DNS names sharing a single IP address, allowing name-based virtual hosting. While optional in HTTP/1.0, it is mandatory in HTTP/1.1.

Server response

```
HTTP/1.1 200 OK
Date: Mon, 23 May 2005 22:38:34 GMT
Server: Apache/1.3.3.7 (Unix) (Red-Hat/Linux)
Last-Modified: Wed, 08 Jan 2003 23:11:55 GMT
ETag: "3f80f-1b6-3e1cb03b"
Content-Type: text/html; charset=UTF-8
Content-Length: 131
Accept-Ranges: bytes
Connection: close

<html>
<head>
  <title>An Example Page</title>
</head>
<body>
  Hello World, this is a very simple HTML document.
</body>
</html>
```

The ETag (entity tag) header is used to determine if a cached version of the requested resource is identical to the current version of the resource on the server. *Content-Type* specifies the Internet media type of the data conveyed by the HTTP message, while *Content-Length* indicates its length in bytes. The HTTP/1.1 webserver publishes its ability to respond to requests for certain byte ranges of the document by setting the header *Accept-Ranges: bytes*. This is useful, if the client needs to have only certain portions[25] of a resource sent by the server, which is called byte serving. When *Connection: close* is sent in a header, it means that the web server will close the TCP connection immediately after the transfer of this response.

Most of the header lines are optional. When *Content-Length* is missing the length is determined in other ways. Chunked transfer encoding uses a chunk size of 0 to mark the end of the content. *Identity* encoding without *Content-Length* reads content until the socket is closed.

A *Content-Encoding* like *gzip* can be used to compress the transmitted data.

Similar protocols

The Gopher protocol was a content delivery protocol that was displaced by HTTP in the early 1990s. The new protocol SPDY is similar to HTTP, modifying the request-response interaction between client and server.

See also

- Basic access authentication
- Constrained Application Protocol – A semantically similar protocol to HTTP but used UDP or UDP-like messages targeted for devices with limited processing capability. Re-uses HTTP and other internet concepts like Internet media type and web linking (RFC 5988)[26]
- Content negotiation

- Curl-loader – HTTP/S loading and testing open-source software
- Digest access authentication
- HTTP 2.0 – currently being worked on by the IETF's Hypertext Transfer Protocol Bis (httpbis) working group.[27]
- HTTP compression
- HTTP-MPLEX – A backwards compatible enhancement to HTTP to improve page and web object retrieval time in congested networks proposed by Robert Mattson
- List of file transfer protocols
- List of HTTP header fields
- List of HTTP status codes
- Representational state transfer (REST)
- Variant object
- Waka (protocol) – A HTTP replacement proposed by Roy Fielding
- Web cache
- WebSocket
- HTTP Debugger (software)
- Fiddler (software)
- Wireshark

Notes

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- HTTP 0.9 – As Implemented in 1991 (http://www.w3.org/Protocols/HTTP/AsImplemented.html)

External links

Wikimedia Commons has media related to ***HTTP***.

- "Change History for HTTP" (http://www.w3.org/Protocols/History.html). W3.org. Retrieved 2010-08-01. A detailed technical history of HTTP.
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recounting the early protocol history

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Categories: Application layer protocols | Hypertext Transfer Protocol | Internet protocols | Network protocols | World Wide Web | World Wide Web Consortium standards

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XML-RPC

From Wikipedia, the free encyclopedia

XML-RPC is a remote procedure call (RPC) protocol which uses XML to encode its calls and HTTP as a transport mechanism.[1] "XML-RPC" also refers generically to the use of XML for remote procedure call, independently of the specific protocol. This article is about the protocol named "XML-RPC".

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History

XML-RPC, the protocol, was created in 1998 by Dave Winer of UserLand Software and Microsoft.[2] As new functionality was introduced, the standard evolved into what is now SOAP.

The generic use of XML for remote procedure call (RPC) was patented by Phillip Merrick, Stewart Allen, and Joseph Lapp in April 2006, claiming benefit to a provisional application filed in March 1998. The patent is assigned to webMethods, located in Fairfax, VA.[3]

Usage

XML-RPC works by sending a HTTP request to a server implementing the protocol. The client in that case is typically software wanting to call a single method of a remote system. Multiple input parameters can be passed to the remote method, one return value is returned. The parameter types allow nesting of parameters into maps and lists, thus larger structures can be transported. Therefore XML-RPC can be used to transport objects or structures both as input and as output parameters.

Identification of clients for authorization purposes can be achieved using popular HTTP security methods. Basic access authentication is used for identification, HTTPS is used when identification (via certificates) and encrypted messages are needed. Both methods can be combined.

In comparison to REST, where *resource representations* (documents) are transferred, XML-RPC is designed to *call methods*.

XML-RPC is simpler to use and understand than SOAP because it

- allows only one method of method serialization, whereas SOAP defines multiple different encodings
- has a simpler security model
- does not require (nor support) the creation of WSDL service descriptions, although XRDL (http://code.google.com/p/xrdl/) provides a simple subset of the functionality provided by WSDL

JSON-RPC is similar to XML-RPC.

Data types

Common datatypes are converted into their XML equivalents with example values shown below:

Name	Tag Example	Description

array	`<array>`
	`  <data>`
	`  <value><i4>1404</i4></value>`
	`  <value><string>Something here</string></value>`
	`  <value><i4>1</i4></value>`
	`  </data>`
	`</array>`
		Array of values, storing no keys

base64	`<base64>eW91IGNhbid0IHJlYWQgdGhpcyE=</base64>`	Base64-encoded binary data
boolean	`<boolean>1</boolean>`	Boolean logical value (0 or 1)
date/time	`<dateTime.iso8601>19980717T14:08:55</dateTime.iso8601>`	Date and time in ISO 8601 format
double	`<double>-12.53</double>`	Double precision floating point number
integer	`<int>42</int>` or	Whole number, integer

	`<i4>42</i4>`	

string	`<string>Hello world!</string>`
	or
	`Hello world!`
		String of characters. Must follow XML encoding.

struct	`<struct>`
	`  <member>`
	`  <name>foo</name>`
	`  <value><i4>1</i4></value>`
	`  </member>`
	`  <member>`
	`  <name>bar</name>`
	`  <value><i4>2</i4></value>`
	`  </member>`
	`</struct>`
		Associative array

nil	`<nil/>`	Discriminated null value; an XML-RPC extension (http://ontosys.com/xml-rpc/extensions.php)

Examples

An example of a typical XML-RPC request would be:

```
<?xml version="1.0"?>
<methodCall>
  <methodName>examples.getStateName</methodName>
  <params>
    <param>
        <value><i4>40</i4></value>
    </param>
  </params>
</methodCall>
```

An example of a typical XML-RPC response would be:

```
<?xml version="1.0"?>
<methodResponse>
  <params>
    <param>
        <value><string>South Dakota</string></value>
    </param>
  </params>
</methodResponse>
```

A typical XML-RPC fault would be:

```
<?xml version="1.0"?>
<methodResponse>
  <fault>
    <value>
      <struct>
        <member>
          <name>faultCode</name>
          <value><int>4</int></value>
        </member>
        <member>
          <name>faultString</name>
          <value><string>Too many parameters.</string></value>
        </member>
      </struct>
```

```
    </value>
  </fault>
</methodResponse>
```

Criticism

Critics of XML-RPC argue that RPC calls can be made with plain XML, and that XML-RPC does not add any value over XML. Both XML-RPC and XML require an application-level data model, such as which field names are defined in the XML schema or the parameter names in XML-RPC. Furthermore, XML-RPC uses about 4 times the number of bytes compared to plain XML to encode the same objects, which is itself verbose compared to JSON.[4][5][6]

Implementations

Python

- xmlrpclib (http://docs.python.org/library/xmlrpclib.html)
  - Renamed xmlrpc.client (http://docs.python.org/3.1/library/xmlrpc.client.html) in Python 3.
- Creating XML-RPC Servers and Clients with Twisted (http://twistedmatrix.com/documents/current/web/howto/xmlrpc.html)

C++

- Libiqxmlrpc (http://libiqxmlrpc.sourceforge.net/)
- Ultra lightweight XML-RPC library for C++ (http://ulxmlrpcpp.sourceforge.net/)
- XML-RPC for C and C++ (http://xmlrpc-c.sourceforge.net/)
- XmlRpc++ (http://xmlrpcpp.sourceforge.net/)
- XmlRpc C++ client for Windows (https://sourceforge.net/projects/xmlrpcc4win/)
- gSOAP toolkit for C and C++ supporting XML-RPC and more (http://www.cs.fsu.edu/~engelen/soap.html)
- libmaia: XML-RPC for Qt/C++ (http://wiedi.frubar.net/blog/2008/03/08/libmaia-xml-rpc-with-qt4/)
- XML-RPC Client S60: XML-RPC for Symbian/C++ (http://xmlrpcclientlib.sourceforge.net/)
- Cxxtools (http://tntnet.org/cxxtools.html) XML-RPC C++ Client and Server for POSIX. It's part of Tntnet project.

Objective-C / GNUstep / Cocoa

- XMLRPC Framework (http://www.mulle-kybernetik.com/software/XMLRPC/)

Erlang

- XML-RPC for Erlang (http://erlang.stacken.kth.se/contrib/xmlrpc-1.13.tgz): This is an HTTP 1.1 compliant XML-RPC library for Erlang. It is designed to make it easy to write XML-RPC Erlang clients and/or servers. The library is compliant with the XML-RPC specification published by http://www.xmlrpc.org/

Groovy

- XML-RPC Module (http://groovy.codehaus.org/XMLRPC)

Java

- Apache XML-RPC (http://ws.apache.org/xmlrpc/): Open source library for Java
- XML-RPC Delight (http://delight.opendfki.de/): Convenient serialisation/deserialisation for Apache XML-RPC using Java Annotations and Beans
- [1] (http://members.fortunecity.com/neptune42/xmlrpc/index.htm): Secure Apache XML-RPC
- Redstone XML-RPC Library (http://xmlrpc.sourceforge.net/): Redstone's Open Source Library – XML-RPC implementation in Java
- XML-RPC Library for Java ME (http://kxmlrpc.sourceforge.net/): Open source client-side library for Java ME
- aXMLRPC (https://github.com/timroes/aXMLRPC): Open source XML-RPC client library for Java and Android
- Nmote-xr (https://github.com/vnesek/nmote-xr): Open source BSD style client/server library with minimal dependencies

JavaScript

- XML-RPC for Node.js (https://github.com/baalexander/node-xmlrpc): Open source JavaScript XML-RPC client and server for node.js
- Mimic XML-RPC (http://mimic-xmlrpc.sourceforge.net/): Open source JavaScript XML-RPC client cross-browser.
- XML-RPC for Javascript (http://gggeek.github.io/jsxmlrpc/): Open source library implementing the XML-RPC and JSON-RPC protocols, written in Javascript.

XMPP

- pyJabberXMLRPC (http://gdr.geekhood.net/gdrwpl/jxmlrpc.php): Python classes for XMPP
- Jabber-RPC (http://xmpp.org/extensions/xep-0009.html): Over the Extensible Messaging and Presence Protocol protocol

PHP

- XmlRpc in Zend_Framework 1.12 (http://framework.zend.com/manual/1.12/en/zend.xmlrpc.html): XmlRpc Server and Client in Zend_Framework 1.12
- XmlRpc in Zend_Framework 2.2 (http://framework.zend.com/manual/2.2/en/modules/zend.xmlrpc.intro.html): XmlRpc Server and Client in

Zend_Framework 2

- XML-RPC for PHP (http://gggeek.github.io/phpxmlrpc/): a library implementing the XML-RPC protocol, written in PHP

Perl

- RPC::XML (https://metacpan.org/module/RPC::XML): A set of Perl classes for core data, message and XML handling
- Frontier::RPC (https://metacpan.org/module/Frontier::RPC2): Another set of Perl modules for XML-RPC client/server implementation
- XML::Compile::RPC (https://metacpan.org/module/XML::Compile::RPC): RPC extension to XML::Compile (https://metacpan.org/module/XML::Compile)

Other

- JSON/XML-RPC Client and Server (http://code.google.com/p/json-xml-rpc/): Abstract away the differences between JSON-RPC and XML-RPC
- RemObjects SDK (http://www.remobjects.com/ro) Delphi and .NET package for XML-RPC, in addition to SOAP and others
- RealThinClient SDK (http://www.realthinclient.com): For Delphi/C++
- XML-RPC for ActionScript (http://xmlrpcflash.mattism.com): For Flash ActionScript 2.0
- as3-rpclib (http://code.google.com/p/as3-rpclib/): For Flex/Actionscript 3
- XML-RPC.NET (http://www.xml-rpc.net): Open source library for .NET clients and servers
- XmlRpc-Light (http://code.google.com/p/xmlrpc-light/): Client and server library for OCaml
- S-XML-RPC (http://common-lisp.net/project/s-xml-rpc/): Client and server library for Common Lisp
- clj-xmlrpc (http://github.com/Raynes/clj-xmlrpc/): XML-RPC client for Clojure
- necessary-evil (http://github.com/brehaut/necessary-evil/): XML-RPC Client and Ring-based Server for Clojure
- HaXR (http://www.haskell.org/haskellwiki/HaXR): Client and server library for Haskell
- Ruby XML-RPC library (http://www.ruby-doc.org/stdlib/libdoc/xmlrpc/rdoc/index.html): For Ruby
- XML-RPC interface to Lua (http://www.keplerproject.org/luaxmlrpc/): For Lua
- android-xmlrpc (http://code.google.com/p/android-xmlrpc/): A light XML-RPC client for Google Android
- XML-RPC for Tcl (http://sourceforge.net/projects/xmlrpctcl/): A Tcl implementation of XML-RPC providing client and server support
- RebXR (http://earl.strain.at/space/rebXR+Users+Guide): a full client/server XML-RPC implementation for REBOL

See also

- Ajax (programming)
- Component technologies

- OPML
- Web service

References

1. ^ Simon St. Laurent, Joe Johnston, Edd Dumbill. (June 2001) *Programming Web Services with XML-RPC*. O'Reilly. First Edition.
2. ^ Box, Don (1 April 2001). "A Brief History of SOAP" (http://www.xml.com/pub/a/ws/2001/04/04/soap.html). O'Reilly. Retrieved 27 October 2010.
3. ^ Merrick et al. (11 April 2006). "US Patent 7,028,312" (http://www.google.com/patents?id=WFV4AAAAEBAJ). Retrieved 18 September 2008.
4. ^ "What is the benefit of XML-RPC over plain XML?" (http://stackoverflow.com/questions/1376688). Stack Overflow. 9 September 2009. Retrieved 7 April 2011.
5. ^ "An open poll on the merits of XmlRpc versus alternatives" (http://www.intertwingly.net/wiki/pie/XmlRpcDiscussion?action=show&redirect=DontUseXmlRpc). intertwingly.net (http://www.intertwingly.net). 22 November 2006. Retrieved 7 April 2011.
6. ^ Jon Canady (14 January 2010). "If you have REST, why XML-RPC?" (http://joncanady.com/blog/2010/01/14/if-you-have-rest-why-xml-rpc/). joncanady.com (http://joncanady.com). Retrieved 7 April 2011.

External links

- XML-RPC Homepage (http://www.xmlrpc.com/)
- Forum (http://groups.yahoo.com/group/xml-rpc/)
- Tutorials (http://www.xml.com/pub/rg/XML_RPC_Tutorials)
- Technology Reports (http://xml.coverpages.org/xml-rpc.html)
- Citations from CiteSeer (http://citeseer.ist.psu.edu/cis?q=XML+RPC&cs=1)
- Relax-NG schema for XML-RPC (http://phpxmlrpc.sourceforge.net/wsdl/schema.rnc)

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Application layer

From Wikipedia, the free encyclopedia

In the Internet model, the **application layer** is an abstraction layer reserved for communications protocols and methods designed for process-to-process communications across an Internet Protocol (IP) computer network. Application layer protocols use the underlying transport layer protocols to establish process-to-process connections via ports.[1]

In the OSI model, the definition of its application layer is narrower in scope. The OSI model defines the application layer as being the user interface – responsible for displaying the information received to the user. The OSI application layer is responsible for displaying data and images to the user in a human-recognizable format and to interface with the presentation layer below it.[2]

OSI separates functionality above the transport layer at two additional levels, the session layer and the presentation layer, specifying strict modular separation of functionality at these layers. It also provides protocol implementations for each layer.

Other protocol examples

- 9P, Plan 9 from Bell Labs distributed file system protocol
- AFP, Apple Filing Protocol
- APPC, Advanced Program-to-Program Communication
- AMQP, Advanced Message Queuing Protocol
- Atom Publishing Protocol
- BEEP, Block Extensible Exchange Protocol
- Bitcoin
- BitTorrent
- CFDP, Coherent File Distribution Protocol
- CoAP, Constrained Application Protocol
- DDS, Data Distribution Service
- DeviceNet
- eDonkey
- ENRP, Endpoint Handlespace Redundancy Protocol
- FastTrack (KaZaa, Grokster, iMesh)
- Finger, User Information Protocol
- Freenet
- FTAM, File Transfer Access and Management

- Gopher, Gopher protocol
- HL7, Health Level Seven
- HTTP, HyperText Transfer Protocol
- H.323, Packet-Based Multimedia Communications System
- IRCP, Internet Relay Chat Protocol
- Kademlia
- KAP, Anonymous File Transfer over UDP/IP (KickAss Protocol)
- LDAP, Lightweight Directory Access Protocol
- LPD, Line Printer Daemon Protocol
- MIME (S-MIME), Multipurpose Internet Mail Extensions and Secure MIME
- Modbus
- MQTT Protocol
- Netconf
- NFS, Network File System
- NIS, Network Information Service
- NNTP, Network News Transfer Protocol
- NTCIP, National Transportation Communications for Intelligent Transportation System Protocol
- NTP, Network Time Protocol
- OSCAR, AOL Instant Messenger Protocol
- PNRP, Peer Name Resolution Protocol
- RDP, Remote Desktop Protocol
- RELP, Reliable Event Logging Protocol
- RIP, Routing Information Protocol
- Rlogin, Remote Login in UNIX Systems
- RPC, Remote Procedure Call
- RTMP, Real Time Messaging Protocol
- RTP, Real-time Transport Protocol
- RTPS, Real Time Publish Subscribe
- RTSP, Real Time Streaming Protocol
- SAP, Session Announcement Protocol
- SDP, Session Description Protocol
- SIP, Session Initiation Protocol

- SLP, Service Location Protocol
- SMB, Server Message Block
- SNTP, Simple Network Time Protocol
- SSH, Secure Shell
- SSMS, Secure SMS Messaging Protocol
- TCAP, Transaction Capabilities Application Part
- TDS, Tabular Data Stream
- Tor (anonymity network)
- Tox
- TSP, Time Stamp Protocol
- VTP, Virtual Terminal Protocol
- Whois (and RWhois), Remote Directory Access Protocol
- WebDAV
- X.400, Message Handling Service Protocol
- X.500, Directory Access Protocol (DAP)
- XMPP, Extensible Messaging and Presence Protocol

References

1. ^ http://docwiki.cisco.com/wiki/Internet_Protocols
2. ^ http://www.inetdaemon.com/tutorials/basic_concepts/network_models/osi_model/application.shtml

External links

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Wikiversity has learning materials about ***Application layer***

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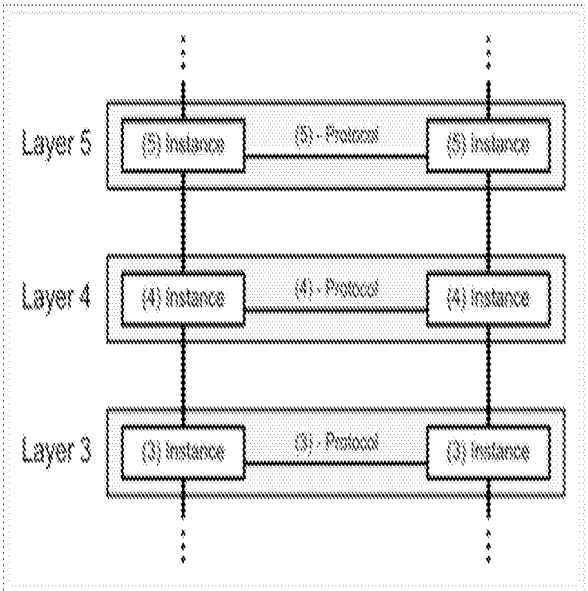
OSI model

From Wikipedia, the free encyclopedia

The **Open Systems Interconnection model** (**OSI**) is a conceptual model that characterizes and standardizes the internal functions of a communication system by partitioning it into abstraction layers. The model is a product of the Open Systems Interconnection project at the International Organization for Standardization (ISO), maintained by the identification ISO/IEC 7498-1.

The model groups communication functions into seven logical layers. A layer serves the layer above it and is served by the layer below it. For example, a layer that provides error-free communications across a network provides the path needed by applications above it, while it calls the next lower layer to send and receive packets that make up the contents of that path. Two instances at one layer are connected by a horizontal connection on that layer.



Communication in the OSI-Model (example with layers 3 to 5)

Contents

- 1 History
- 2 Description of OSI layers
  - 2.1 Layer 1: physical layer
  - 2.2 Layer 2: data link layer
  - 2.3 Layer 3: network layer
  - 2.4 Layer 4: transport layer
  - 2.5 Layer 5: session layer
  - 2.6 Layer 6: presentation layer
  - 2.7 Layer 7: application layer
- 3 Cross-layer functions
- 4 Interfaces
- 5 Examples
- 6 Comparison with TCP/IP model
- 7 See also
- 8 References
- 9 External links

History

Work on a layered model of network architecture was started and the International Organization for Standardization (ISO) began to develop its OSI framework architecture. OSI had two major components: an *abstract model* of networking, called the Basic Reference Model or seven-layer model, and a set of specific protocols.

The concept of a seven-layer model was provided by the work of Charles Bachman, Honeywell Information Services. Various aspects of OSI design evolved from experiences with the ARPANET, the fledgling Internet, NPLNET, EIN, CYCLADES network and the work in IFIP WG6.1. The new design was documented in ISO 7498 and its various addenda. In this model, a networking system was divided into layers. Within each layer, one or more entities implement its functionality. Each entity interacted directly only with the layer immediately beneath it, and provided facilities for use by the layer above it.

Protocols enabled an entity in one host to interact with a corresponding entity at the same layer in another host. Service definitions abstractly described the functionality provided to an (N)-layer by an (N-1) layer, where N was one of the seven layers of protocols operating in the local host.

The OSI standards documents are available from the ITU-T as the X.200-series of recommendations.[1] Some of the protocol specifications were also available as part of the ITU-T X series. The equivalent ISO and ISO/IEC standards for the OSI model were available from ISO, but only some of them without fees.[2]

Description of OSI layers

The recommendation X.200 describes seven layers, labeled 1 to 7. Layer 1 is the lower layer in this model.

OSI Model			
	Data unit	**Layer**	**Function**
Host layers	Data	7. Application	Network process to application
		6. Presentation	Data representation, encryption and decryption, convert machine dependent data to machine independent data
		5. Session	Interhost communication, managing sessions between applications
	Segments	4. Transport	Reliable delivery of packets between points on a network.
Media layers	Packet/Datagram	3. Network	Addressing, routing and (not necessarily reliable) delivery of datagrams between points on a network.
	Bit/Frame	2. Data link	A reliable direct point-to-point data connection.
	Bit	1. Physical	A (not necessarily reliable) direct point-to-point data connection.

At each level (*N*), two entities (layer N peers) exchange protocol data units (PDUs) by means of a layer-N protocol. A service data unit (SDU) is the payload of a PDU, transmitted unchanged to a peer.

The SDU is a unit of data that has been passed down from an OSI layer to the next-lower layer, and which the lower layer encapsulates into a PDU. Layer N-1 adds a header or a footer, or both, to the SDU, composing a PDU of layer N-1. The added framing make it possible to get the data from a source to a destination. The PDU at a layer N becomes the SDU of layer N-1.

Some orthogonal aspects, such as management and security, involve every layer.

Security services are not related to a specific layer: they can be related by several layers, as defined by ITU-T X.800 Recommendation.[3]

These services are aimed to improve the CIA triad (confidentiality, integrity, and availability) of transmitted data. In practice, the availability of communication service is determined by the interaction between network design and network management protocols. Appropriate choices for both of these are needed to protect against denial of service.

Layer 1: physical layer

The physical layer has the following major functions:

- it defines the electrical and physical specifications of the data connection. It defines the relationship between a device and a physical transmission medium (e.g., a copper or fiber optical cable). This includes the layout of pins, voltages, line impedance, cable specifications, signal timing, hubs, repeaters, network adapters, host bus adapters (HBA used in storage area networks) and more.
- it defines the protocol to establish and terminate a connection between two directly connected nodes over a communications medium.
- it may define the protocol for flow control.
- it defines a protocol for the provision of a (not necessarily reliable) connection between two directly connected nodes, and the modulation or conversion between the representation of digital data in user equipment and the corresponding signals transmitted over the physical communications channel. This channel can involve physical cabling (such as copper and optical fiber) or a wireless radio link.

The physical layer of Parallel SCSI operates in this layer, as do the physical layers of Ethernet and other local-area networks, such as Token Ring, FDDI, ITU-T G.hn, and IEEE 802.11, as well as personal area networks such as Bluetooth and IEEE 802.15.4.

Layer 2: data link layer

The data link layer provides a reliable link between two directly connected nodes, by detecting and possibly correcting errors that may occur in the physical layer. The data link layer is divided into two sublayers:

- Media Access Control (MAC) layer - responsible for controlling how computers in the network gain access to data and permission to transmit it.
- Logical Link Control (LLC) layer - control error checking and packet synchronization.

The Point-to-Point protocol (PPP) is an example of a data link layer in the TCP/IP protocol stack.

The ITU-T G.hn standard, which provides high-speed local area networking over existing wires (power lines, phone lines and coaxial cables), includes a complete data link layer that provides both error correction and flow control by means of a selective-repeat sliding-window protocol.

Layer 3: network layer

The network layer provides the functional and procedural means of transferring variable length data sequences (called datagrams) from one node to another connected to the same *network*. A network is a medium to which many nodes can be connected, on which every node has an *address* and which permits nodes connected to it to transfer messages to other nodes connected to it by merely providing the content of a message and the address of the destination node and letting the network find the way to deliver ("route") the message to the destination node. In addition to message routing, the network may (or may not) implement message delivery by splitting the message into several fragments, delivering each fragment by a separate route and reassembling the fragments, report delivery errors, etc.

Datagram delivery at the network layer is *not* guaranteed to be *reliable*.

A number of layer-management protocols, a function defined in the *management annex*, ISO 7498/4, belong to the network layer. These include routing protocols, multicast group management, network-layer information and error, and network-layer address assignment. It is the function of the payload that makes these belong to the network layer, not the protocol that carries them.

Layer 4: transport layer

The transport layer provides the functional and procedural means of transferring variable-length data sequences from a source to a destination host via one or more networks, while maintaining the quality of service functions.

An example of a transport-layer protocol in the standard Internet protocol stack is TCP, usually built on top of the IP protocol.

The transport layer controls the reliability of a given link through flow control, segmentation/desegmentation, and error control. Some protocols are state- and connection-oriented. This means that the transport layer can keep track of the segments and retransmit those that fail. The transport layer also provides the acknowledgement of the successful data transmission and sends the next data if no errors occurred. The transport layer creates packets out of the message received from the application layer. Packetizing is a process of dividing the long message into smaller messages.

OSI defines five classes of connection-mode transport protocols ranging from class 0 (which is also known as TP0 and provides the fewest features) to class 4 (TP4, designed for less reliable networks, similar to the Internet). Class 0 contains no error recovery, and was designed for use on network layers that provide error-free connections. Class 4 is closest to TCP, although TCP contains functions, such as the graceful close, which OSI assigns to the session layer. Also, all OSI TP connection-mode protocol classes provide expedited data and preservation of record boundaries. Detailed characteristics of TP0-4 classes are shown in the following table:[4]

Feature Name	TP0	TP1	TP2	TP3	TP4
Connection-oriented network	Yes	Yes	Yes	Yes	Yes
Connectionless network	No	No	No	No	Yes
Concatenation and separation	No	Yes	Yes	Yes	Yes
Segmentation and reassembly	Yes	Yes	Yes	Yes	Yes
Error recovery	No	Yes	Yes	Yes	Yes
Reinitiate connection (if an excessive number of PDUs are unacknowledged)	No	Yes	No	Yes	No
Multiplexing and demultiplexing over a single virtual circuit	No	No	Yes	Yes	Yes
Explicit flow control	No	No	Yes	Yes	Yes
Retransmission on timeout	No	No	No	No	Yes
Reliable transport service	No	Yes	No	Yes	Yes

An easy way to visualize the transport layer is to compare it with a post office, which deals with the dispatch and classification of mail and parcels sent. Do remember, however, that a post office manages the outer envelope of mail. Higher layers may have the equivalent of double envelopes, such as cryptographic presentation services that can be read by the addressee only. Roughly speaking, tunneling protocols operate at the transport layer, such as carrying non-IP protocols such as IBM's SNA or Novell's IPX over an IP network, or end-to-end encryption with IPsec. While Generic Routing Encapsulation (GRE) might seem to be a network-layer protocol, if the encapsulation of the payload takes place only at endpoint, GRE becomes closer to a transport protocol that uses IP headers but contains complete frames or packets to deliver to an endpoint. L2TP carries PPP frames inside transport packet.

Although not developed under the OSI Reference Model and not strictly conforming to the OSI definition of the transport layer, the Transmission Control Protocol (TCP) and the User Datagram Protocol (UDP) of the Internet Protocol Suite are commonly categorized as layer-4 protocols within OSI.

Layer 5: session layer

The session layer controls the dialogues (connections) between computers. It establishes, manages and terminates the connections between the local and remote application. It provides for full-duplex, half-duplex, or simplex operation, and establishes checkpointing, adjournment, termination, and restart procedures. The OSI model made this layer responsible for graceful close of sessions, which is a property of the Transmission Control Protocol, and also for session checkpointing and recovery, which is not usually used in the Internet Protocol Suite. The session layer is commonly implemented explicitly in application environments that use remote procedure calls.

Layer 6: presentation layer

The presentation layer establishes context between application-layer entities, in which the application-layer entities may use different syntax and semantics if the presentation service provides a mapping between them. If a mapping is available, presentation service data units are encapsulated into session protocol data units, and passed down the TCP/IP stack.

This layer provides independence from data representation (e.g., encryption) by translating between application and network formats. The presentation

layer transforms data into the form that the application accepts. This layer formats and encrypts data to be sent across a network. It is sometimes called the syntax layer.[5]

The original presentation structure used the Basic Encoding Rules of Abstract Syntax Notation One (ASN.1), with capabilities such as converting an EBCDIC-coded text file to an ASCII-coded file, or serialization of objects and other data structures from and to XML.

Layer 7: application layer

The application layer is the OSI layer closest to the end user, which means both the OSI application layer and the user interact directly with the software application. This layer interacts with software applications that implement a communicating component. Such application programs fall outside the scope of the OSI model. Application-layer functions typically include identifying communication partners, determining resource availability, and synchronizing communication. When identifying communication partners, the application layer determines the identity and availability of communication partners for an application with data to transmit. When determining resource availability, the application layer must decide whether sufficient network or the requested communication exists. In synchronizing communication, all communication between applications requires cooperation that is managed by the application layer. Some examples of application-layer are implementations also include:

- On OSI stack:
  - FTAM File Transfer and Access Management Protocol
  - X.400 Mail
  - Common Management Information Protocol (CMIP)
- On TCP/IP stack:
  - Hypertext Transfer Protocol (HTTP),
  - File Transfer Protocol (FTP),
  - Simple Mail Transfer Protocol (SMTP)
  - Simple Network Management Protocol (SNMP)...

Cross-layer functions

There are some functions or services that are not tied to a given layer, but they can affect more than one layer. Examples include the following:

- Security service (telecommunication)[3] as defined by ITU-T X.800 recommendation.
- Management functions, i.e. functions that permit to configure, instantiate, monitor, terminate the communications of two or more entities: there is a specific application-layer protocol, common management information protocol (CMIP) and its corresponding service, common management information service (CMIS), they need to interact with every layer in order to deal with their instances.
- Multiprotocol Label Switching (MPLS) operates at an OSI-model layer that is generally considered to lie between traditional definitions of layer 2 (data link layer) and layer 3 (network layer), and thus is often referred to as a "layer-2.5" protocol. It was designed to provide a unified data-carrying

service for both circuit-based clients and packet-switching clients which provide a datagram-based service model. It can be used to carry many different kinds of traffic, including IP packets, as well as native ATM, SONET, and Ethernet frames.

- ARP is used to translate IPv4 addresses (OSI layer 3) into Ethernet MAC addresses (OSI layer 2).

Interfaces

Neither the OSI Reference Model nor OSI protocols specify any programming interfaces, other than as deliberately abstract service specifications. Protocol specifications precisely define the interfaces between different computers, but the software interfaces inside computers, known as network sockets are implementation-specific.

For example Microsoft Windows' Winsock, and Unix's Berkeley sockets and System V Transport Layer Interface, are interfaces between applications (layer 5 and above) and the transport (layer 4). NDIS and ODI are interfaces between the media (layer 2) and the network protocol (layer 3).

Interface standards, except for the physical layer to media, are approximate implementations of OSI service specifications.

Examples

Layer		OSI protocols	TCP/IP protocols	Signaling System 7[6]	AppleTalk	IPX	SNA	UMTS	Misc. examples
#	Name								
7	Application	FTAM, X.400, X.500, DAP, ROSE, RTSE, ACSE[7] CMIP[8]	NNTP, SIP, SSI, DNS, FTP, Gopher, HTTP, NFS, NTP, DHCP, SMPP, SMTP, SNMP, Telnet, BGP, FCIP	INAP, MAP, TCAP, ISUP, TUP	AFP, ZIP, RTMP, NBP	SAP	APPC		HL7, Modbus
6	Presentation	ISO/IEC 8823, X.226, ISO/IEC 9576-1, X.236	MIME, SSL, TLS, XDR		AFP				TDI, ASCII, EBCDIC, MIDI, MPEG
5	Session	ISO/IEC 8327, X.225, ISO/IEC 9548-1, X.235	Sockets. Session establishment in TCP, RTP, PPTP		ASP, ADSP, PAP	NWLink	DLC?		Named pipes, NetBIOS, SAP, half duplex, full duplex, simplex, RPC, SOCKS
4	Transport	ISO/IEC 8073, TP0, TP1, TP2, TP3, TP4 (X.224), ISO/IEC 8602, X.234	TCP, UDP, SCTP, DCCP			DDP, SPX			NBF
3	Network	ISO/IEC 8208, X.25 (Packet- LaISO/IEC 8878, X.223, ISO/IEC 8473-1, CLNP X.233.	IP, IPsec, ICMP, IGMP, OSPF, RIP	SCCP, MTP	ATP (TokenTalk or EtherTalk)	IPX		RRC (Radio Resource Control) and BMC (Broadcast/Multicast Control)	NBF, Q.931, NDP, ARP (maps layer 3 to layer 2 address), IS-IS
2	Data link layer	ISO/IEC 7666, X.25 (LAPB), Token Bus, X.222, ISO/IEC 8802-2 LLC Type 1 and 2[9]	PPP, SBTV, SLIP	MTP, Q.710	LocalTalk, AppleTalk Remote Access, PPP	IEEE 802.3 framing, Ethernet II framing	SDLC	Packet Data Convergence Protocol (PDCP),[10] LLC (Logical Link Control), MAC (Media Access Control)	802.3 (Ethernet), 802.11a/b/g/n MAC/LLC, 802.1Q (VLAN), ATM, HDP, FDDI, Fibre Channel, Frame Relay, HDLC, ISL, PPP, Q.921,

									Token Ring, CDP, ITU-T G.hn DLL CRC, Bit stuffing, ARQ, Data Over Cable Service Interface Specification (DOCSIS), interface bonding
1	Physical	X.25 (X.21bis, EIA/TIA-232, EIA/TIA-449, EIA-530, G.703)[9]		MTP, Q.710	RS-232, RS-422, STP, PhoneNet		Twinax	UMTS Physical layer or L1	RS-232, Full duplex, RJ45, V.35, V.34, I.430, I.431, T1, E1, 10BASE-T, 100BASE-TX, 1000BASE-T, POTS, SONET, SDH, DSL, 802.11a/b/g/n PHY, ITU-T G.hn PHY, Controller Area Network, Data Over Cable Service Interface Specification (DOCSIS), DWDM

Comparison with TCP/IP model

In the TCP/IP model of the Internet, protocols are deliberately not as rigidly designed into strict layers as in the OSI model.[11] RFC 3439 contains a section entitled "Layering considered harmful".[12] However, TCP/IP does recognize four broad layers of functionality which are derived from the operating scope of their contained protocols: the scope of the software application; the end-to-end transport connection; the internetworking range; and the scope of the direct links to other nodes on the local network.[13]

Even though the concept is different from the OSI model, these layers are nevertheless often compared with the OSI layering scheme in the following way:

- The Internet application layer includes the OSI application layer, presentation layer, and most of the session layer.
- Its end-to-end transport layer includes the graceful close function of the OSI session layer as well as the OSI transport layer.
- The internetworking layer (Internet layer) is a subset of the OSI network layer (see above)
- The link layer includes the OSI data link and physical layers, as well as parts of OSI's network layer.

These comparisons are based on the original seven-layer protocol model as defined in ISO 7498, rather than refinements in such things as the internal organization of the network layer document.

The presumably strict peer layering of the OSI model as it is usually described does not present contradictions in TCP/IP, as it is permissible that protocol usage does not follow the hierarchy implied in a layered model. Such examples exist in some routing protocols (e.g., OSPF), or in the description of

tunneling protocols, which provide a link layer for an application, although the tunnel host protocol might well be a transport or even an application-layer protocol in its own right.

See also

- Hierarchical internetworking model
- Internet protocol suite
- Layer 8
- Protocol stack
- Service layer
- TCP/IP model
- X.25 protocol suite
- WAP protocol suite
- List of information technology acronyms
- IBM Systems Network Architecture

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6. ^ ITU-T Recommendation Q.1400 (03/1993) (http://www.itu.int/rec/T-REC-Q.1400/en/), *Architecture framework for the development of signaling and OA&M protocols using OSI concepts*, pp 4, 7.
7. ^ ITU Rec. X.227 (ISO 8650), X.217 (ISO 8649)
8. ^ X.700 series of recommendations from the ITU-T (in particular X.711), and ISO 9596
9. ^ a b CISCO Cisco Systems, Inc. Internetworking Technology Handbook OSI Model Physical layer (http://www.cisco.com/en/US/docs/internetworking/technology/handbook/Intro-to-Internet.html#wp1020669)
10. ^ 3GPP TS 36.300 : E-UTRA and E-UTRAN Overall Description, Stage 2, Release 11 (http://www.3gpp.org/ftp/Specs/html-info/36300.htm)
11. ^ RFC 3439
12. ^ http://tools.ietf.org/html/rfc3439#section-3
13. ^ [1] (http://www.exa.unicen.edu.ar/catedras/comdat1/material/TP1-Ejercicio5-ingles.pdf)

External links

Wikimedia Commons has media related to ***OSI model***.

- ISO/IEC standard 7498-1:1994 (http://standards.iso.org/ittf/PubliclyAvailableStandards/s020269_ISO_IEC_7498-1_1994(E).zip) (PDF document inside ZIP archive) (requires HTTP cookies in order to accept licence agreement)
- ITU-T X.200 (the same contents as from ISO) (http://www.itu.int/rec/dologin_pub.asp?lang=e&id=T-REC-X.200-199407-I!!PDF-E&type=items)
- The ISO OSI Reference Model , Beluga graph of data units and groups of layers (http://infchg.appspot.com/usr?at=1263939371)
- Zimmermann, Hubert (April 1980). "OSI Reference Model — The ISO Model of Architecture for Open Systems Interconnection". *IEEE Transactions on Communications* **28** (4): 425–432. doi:10.1109/TCOM.1980.1094702 (http://dx.doi.org/10.1109%2FTCOM.1980.1094702). CiteSeerX: 10.1.1.136.9497 (http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.136.9497).
- Cisco Systems Internetworking Technology Handbook (http://docwiki.cisco.com/wiki/Internetworking_Technology_Handbook)

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Categories: ISO standards | ITU-T recommendations | Network architecture | OSI protocols | Reference models | Computer networking

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ISO 8601

From Wikipedia, the free encyclopedia

ISO 8601 *Data elements and interchange formats – Information interchange – Representation of dates and times* is an international standard covering the exchange of date and time-related data. It was issued by the International Organization for Standardization (ISO) and was first published in 1988. The purpose of this standard is to provide an unambiguous and well-defined method of representing dates and times, so as to avoid misinterpretation of numeric representations of dates and times, particularly when data is transferred between countries with different conventions for writing numeric dates and times.

The standard organizes the data so the largest temporal term (the year) appears first in the data string and progresses to the smallest term (the second). It also provides for a standardized method of communicating time-based information across time zones by attaching an offset to Coordinated Universal Time (UTC).[1]

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Date and time (current at page generation) expressed according to ISO 8601:

Date:	**2014-07-31**
Combined date and time in UTC:	**2014-07-31T12:35:52+00:00** **2014-07-31T12:35:52Z**
Week:	**2014-W31**
Date with week number:	**2014-W31-4**
Ordinal date:	**2014-212**

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History

The first edition of the ISO 8601 standard was published in 1988. It unified and replaced a number of older ISO standards on various aspects of date and time notation: ISO 2014, ISO 2015, ISO 2711, ISO 3307, and ISO 4031.[2] It has been superseded by a second edition in 2000 and by the current third edition published on 3 December 2004.

ISO 2014 was the standard that originally introduced the all-numeric date notation in most-to-least-significant order [YYYY]-[MM]-[DD]. The ISO week numbering system was introduced in ISO 2015, and the identification of days by ordinal dates was originally defined in ISO 2711.

It is maintained by ISO Technical Committee TC 154.[3]

General principles

- Date and time values are ordered from the most to the least significant: year, month (or week), day, hour, minute, second, and fraction of second. The lexicographical order of the representation thus corresponds to chronological order, except for date representations involving negative years. This allows dates to be naturally sorted by, for example, file systems.
- Each date and time value has a fixed number of digits that must be padded with leading zeros.
- Representations can be done in one of two formats – a basic format with a minimal number of separators or an extended format with separators added to enhance human readability.[1] The standard notes that "The basic format should be avoided in plain text."[4] The separator used between date values (year, month, week, and day) is the hyphen, while the colon is used as the separator between time values (hours, minutes, and seconds). For example, the 6th day of the 1st month of the year 2009 may be written as "2009-01-06" in the extended format or simply as "20090106" in the basic format without ambiguity.
- For reduced precision,[5] any number of values may be dropped from any of the date and time representations, but in the order from the least to the most significant. For example, "2004-05" is a valid ISO 8601 date, which indicates May (the fifth month) 2004. This format will never represent the 5th day of an unspecified month in 2004, nor will it represent a time-span extending from 2004 into 2005.
- If necessary for a particular application, the standard supports the addition of a decimal fraction to the smallest time value in the representation.

Dates

The standard uses the Gregorian calendar, which serves as an international standard for civil use.[6]

ISO 8601 fixes a reference calendar date to the Gregorian calendar of 20 May 1875 as the date the *Convention du Mètre* (Metre Convention) was signed in Paris. However, ISO calendar dates before the Convention are still compatible with the Gregorian calendar all the way back to the official introduction of the Gregorian calendar on 1582-10-15. Earlier dates, in the proleptic Gregorian calendar, may be used by mutual agreement of the partners exchanging information. The standard states that every date must be consecutive, so usage of the Julian calendar would be contrary to the standard (because at the switchover date, the dates would not be consecutive).

July 2014

Wk	Mo	Tu	We	Th	Fr	Sa	Su
(27)	30	1	2	3	4	5	6
(28)	7	8	9	10	11	12	13
(29)	14	15	16	17	18	19	20
(30)	21	22	23	24	25	26	27
(31)	28	29	30	31	1	2	3

Years

ISO 8601 prescribes, as a minimum, a four-digit year [YYYY] to avoid the year 2000 problem. It therefore represents years from 0000 to 9999, year 0000 being equal to 1 BC and all others AD. (However, "values in the range [0000] through [1582] shall only be used by mutual agreement of the partners in information interchange.")[7]

YYYY

±YYYYY

To represent years before 0000 or after 9999, the standard also permits the expansion of the year representation but only by prior agreement between the sender and the receiver.[8]

An expanded year representation [±YYYYY] must have an agreed-upon number of extra year digits beyond the four-digit minimum, and it must be prefixed with a + or – sign[9] instead of the common AD or BC notation; by convention 1 BC is labelled +0000, 2 BC is labeled -0001, and so on.[10]

Calendar dates

Calendar date representations are in the form as shown in the box to the right. [YYYY] indicates a four-digit year, 0000 through 9999. [MM] indicates a two-digit month of the year, 01 through 12. [DD] indicates a two-digit day of that month, 01 through 31. For example, "the 5th of April 1981" may be represented as either "1981-04-05" in the *extended format* or "19810405" in the *basic format*.

YYYY-MM-DD	*or*	YYYYMMDD
YYYY-MM		(*but not* YYYYMM)

The standard also allows for calendar dates to be written with reduced precision. For example, one may write "1981-04" to mean "1981 April", and one may simply write "1981" to refer to that year or "19" to refer to the century from 1900 to 1999 inclusive.

Although the standard allows both the YYYY-MM-DD and YYYYMMDD formats for complete calendar date representations, if the day [DD] is omitted then only the YYYY-MM format is allowed. By disallowing dates of the form YYYYMM, the standard avoids confusion with the truncated representation YYMMDD (still often used).

Week dates

Week date representations are in the format as shown in the box to the right. [YYYY] indicates the *ISO week-numbering year* which is slightly different from the calendar year (see below). [Www] is the *week*

YYYY-Www	*or*	YYYYWww

number prefixed by the letter *W*, from W01 through W53. [D] is the *weekday number*, from 1 through 7, beginning with Monday and ending with Sunday. This form is popular in the manufacturing industries.

YYYY-Www-D	*or*	YYYYWwwD

There are mutually equivalent descriptions of week 01:

- the week with the year's first Thursday in it (the formal ISO definition),
- the week with 4 January in it,
- the first week with the majority (four or more) of its days in the starting year, and
- the week starting with the Monday in the period 29 December – 4 January.

If 1 January is on a Monday, Tuesday, Wednesday or Thursday, it is in week 01. If 1 January is on a Friday, Saturday or Sunday, it is in week 52 or 53 of the previous year (there is no week 00). 28 December is always in the last week of its year.

The week number can be described by counting the Thursdays: week 12 contains the 12th Thursday of the year.

The *ISO week-numbering year* starts at the first day (Monday) of week 01 and ends at the Sunday before the new ISO year (hence without overlap or gap). It consists of 52 or 53 full weeks. The ISO week-numbering year number deviates from the number of the calendar year (Gregorian year) on a Friday, Saturday, and Sunday, or a Saturday and Sunday, or just a Sunday, at the start of the calendar year (which are at the end of the previous ISO week-numbering year) and a Monday, Tuesday and Wednesday, or a Monday and Tuesday, or just a Monday, at the end of the calendar year (which are in week 01 of the next ISO week-numbering year). For Thursdays, the ISO week-numbering year number is always equal to the calendar year number.

Examples:

- Monday 29 December 2008 is written "2009-W01-1"
- Sunday 3 January 2010 is written "2009-W53-7"

For an overview of week numbering systems see week number. The US system has weeks from Sunday through Saturday, and partial weeks at the beginning and the end of the year. An advantage is that no separate year numbering like the ISO week-numbering year is needed, while correspondence of lexicographical order and chronological order is preserved.

Ordinal dates

An ordinal date is a simple form for occasions when the arbitrary nature of week and month definitions are more of an impediment than an aid, for instance, when comparing dates from different calendars. As represented above, [YYYY] indicates a year. [DDD] is the day of that year, from 001 through 365 (366 in leap years). For example, "1981-04-05" is also "1981-095".

YYYY-DDD	*or*	YYYYDDD

This format is used with simple hardware systems that have a need for a date system, but where including full calendar calculation software may be a significant nuisance. This system is sometimes incorrectly referred to as "Julian Date", whereas the astronomical Julian Date is a sequential count of the number of days since day 0 beginning 1 January 4713 BC Greenwich noon, Julian proleptic calendar (or noon on ISO date -4713-11-24 which uses the Gregorian proleptic calendar with a year [0000]).

Times

ISO 8601 uses the 24-hour clock system. The *basic format* is [hh][mm][ss] and the *extended format* is [hh]:[mm]:[ss].

hh:mm:ss	*or*	hhmmss
hh:mm	*or*	hhmm
	hh	

- [hh] refers to a zero-padded hour between 00 and 24 (where 24 is only used to denote midnight at the end of a calendar day).
- [mm] refers to a zero-padded minute between 00 and 59.
- [ss] refers to a zero-padded second between 00 and 60 (where 60 is only used to denote an added leap second).

So a time might appear as either "134730" in the *basic format* or "13:47:30" in the *extended format*.

It is also acceptable to omit lower order time elements for reduced precision:[5] [hh]:[mm], [hh][mm] and [hh] are all used. (The use of [hh] alone is considered basic format.[11])

Midnight is a special case and can be referred to as both "00:00" and "24:00". The notation "00:00" is used at the beginning of a calendar day and is the more frequently used. At the end of a day use "24:00". Note that "2007-04-05T24:00" is the same instant as "2007-04-06T00:00" (see *Combined date and time representations* below).

Decimal fractions may be added to any of the three time elements. However, a fraction may only be added to the lowest order time element in the representation. A decimal mark, either a comma or a dot (without any preference as stated in resolution 10 of the 22nd General Conference CGPM in 2003,[12] but with a preference for a comma according to ISO 8601:2004)[13] is used as a separator between the time element and its fraction. To denote "14 hours, 30 and one half minutes", do not include a seconds figure. Represent it as "14:30,5", "1430,5", "14:30.5", or "1430.5". There is no limit on the number of decimal places for the decimal fraction. However, the number of decimal places needs to be agreed to by the communicating parties.

Time zone designators

Time zones in ISO 8601 are represented as local time (with the location unspecified), as UTC, or as an offset from UTC.

<time>Z
<time>±hh:mm
<time>±hhmm
<time>±hh

If no UTC relation information is given with a time representation, the time is assumed to be in local time. While it may be safe to assume local time when communicating in the same time zone, it is ambiguous when used in communicating across different time zones. It is usually preferable to indicate a time zone (zone designator) using the standard's notation.

UTC

If the time is in UTC, add a *Z* directly after the time without a space. *Z* is the zone designator for the zero UTC offset. "09:30 UTC" is therefore represented as "09:30Z" or "0930Z". "14:45:15 UTC" would be "14:45:15Z" or "144515Z".

UTC time is also known as 'Zulu' time, since 'Zulu' is the NATO phonetic alphabet word for 'Z'.

Time offsets from UTC

The offset from UTC is given in the format ±[hh]:[mm], ±[hh][mm], or ±[hh]. So if the time being described is one hour ahead of UTC (such as the time in Berlin during the winter), the zone designator would be "+01:00", "+0100", or simply "+01". This is appended to the time in the same way that 'Z' was above. The offset from UTC changes with daylight saving time, e.g. a time offset in Chicago, would be "−06:00" for the winter (Central Standard Time) and "−05:00" for the summer (Central Daylight Time).

The following times all refer to the same moment: "18:30Z", "22:30+04", "1130−0700", and "15:00−03:30". Nautical time zone letters are not used with the exception of Z. To calculate UTC time one has to subtract the offset from the local time, e.g. for "15:00−03:30" do 15:00 − (−03:30) to get 18:30 UTC.

An offset of zero, in addition to having the special representation "Z", can also be stated numerically as "+00:00", "+0000", or "+00". However, it is not permitted to state it numerically with a negative sign, as "−00:00", "−0000", or "−00". The clause dictating sign usage (clause 3.4.2 in the 2004 edition of the standard) states that a plus sign must be used for a positive or zero value, and a minus sign for a negative value. Contrary to this rule, RFC 3339, which is otherwise a profile of ISO 8601, permits the use of "−00", with the same denotation as "+00" but a differing connotation.[14]

Combined date and time representations

A single point in time can be represented by concatenating a complete date expression, the letter *T* as a delimiter, and a valid time expression. For example "2007-04-05T14:30".

```
<date>T<time>
```

If a time zone designator is required, it follows the combined date and time. For example "2007-04-05T14:30Z" or "2007-04-05T12:30-02:00".

Either basic or extended formats may be used, but both date and time must use the same format. The date expression may be calendar, week, or ordinal, and must use a complete representation. The time expression may use reduced accuracy. It is permitted to omit the 'T' character by mutual agreement.[15]

Durations

Durations are a component of time intervals and define the amount of intervening time in a time interval. They should only be used as part of a time interval as prescribed by the standard. Time intervals are discussed in the next section.

```
PnYnMnDTnHnMnS
PnW
P<date>T<time>
```

Durations are represented by the format P[n]Y[n]M[n]DT[n]H[n]M[n]S or P[n]W as shown to the right. In these representations, the [n] is replaced by the value for each of the date and time elements that follow the [n]. Leading zeros are not required, but the maximum number of digits for each element should be agreed to by the communicating parties. The capital letters *P*, *Y*, *M*, *W*, *D*, *T*, *H*, *M*, and *S* are designators for each of the date and time elements and are not replaced.

- *P* is the duration designator (historically called "period") placed at the start of the duration representation.
- *Y* is the year designator that follows the value for the number of years.

- *M* is the month designator that follows the value for the number of months.
- *W* is the week designator that follows the value for the number of weeks.
- *D* is the day designator that follows the value for the number of days.
- *T* is the time designator that precedes the time components of the representation.
- *H* is the hour designator that follows the value for the number of hours.
- *M* is the minute designator that follows the value for the number of minutes.
- *S* is the second designator that follows the value for the number of seconds.

For example, "P3Y6M4DT12H30M5S" represents a duration of "three years, six months, four days, twelve hours, thirty minutes, and five seconds".

Date and time elements including their designator may be omitted if their value is zero, and lower order elements may also be omitted for reduced precision. For example, "P23DT23H" and "P4Y" are both acceptable duration representations.

To resolve ambiguity, "P1M" is a one-month duration and "PT1M" is a one-minute duration (note the time designator, T, that precedes the time value). The smallest value used may also have a decimal fraction, as in "P0.5Y" to indicate half a year. This decimal fraction may be specified with either a comma or a full stop, as in "P0,5Y" or "P0.5Y". The standard does not prohibit date and time values in a duration representation from exceeding their "carry over points" except as noted below. Thus, "PT36H" could be used as well as "P1DT12H" for representing the same duration.

Alternatively, a format for duration based on combined date and time representations may be used by agreement between the communicating parties either in the basic format PYYYYMMDDThhmmss or in the extended format P[YYYY]-[MM]-[DD]T[hh]:[mm]:[ss]. For example, the first duration shown above would be "P0003-06-04T12:30:05". However, individual date and time values cannot exceed their moduli (e.g. a value of 13 for the month or 25 for the hour would not be permissible).[16]

Time intervals

A time interval is the intervening time between two time points. The amount of intervening time is expressed by a duration (as described in the previous section). The two time points (start and end) are expressed by either a combined date and time representation or just a date representation.

There are four ways to express a time interval:

1. Start and end, such as "2007-03-01T13:00:00Z/2008-05-11T15:30:00Z"
2. Start and duration, such as "2007-03-01T13:00:00Z/P1Y2M10DT2H30M"
3. Duration and end, such as "P1Y2M10DT2H30M/2008-05-11T15:30:00Z"
4. Duration only, such as "P1Y2M10DT2H30M", with additional context information

<start>/<end>

<start>/<duration>

<duration>/<end>

<duration>

Of these, the first three require two values separated by an *interval designator* which is usually a solidus or forward slash "/". Clause 4.4.2 of the standard notes that: "In certain application areas a double hyphen is used as a separator instead of a solidus." The standard does not define the term "double hyphen", but previous versions used notations like "2000--2002".[17] Use of a double hyphen instead of a solidus allows inclusion in computer

filenames.[18] A solidus is a reserved character and not allowed in a filename in common operating systems.

For <start>/<end> expressions, if any elements are missing from the end value, they are assumed to be the same as for the start value including the time zone. This feature of the standard allows for concise representations of time intervals. For example, the date of a two-hour meeting including the start and finish times could be simply shown as "2007-12-14T13:30/15:30", where "/15:30" implies "/2007-12-14T15:30" (the same date as the start), or the beginning and end dates of a monthly billing period as "2008-02-15/03-14", where "/03-14" implies "/2008-03-14" (the same year as the start).

If greater precision is desirable to represent the time interval, then more time elements can be added to the representation. An interval denoted "2007-11-13/15" can start at any time on 2007-11-13 and end at any time on 2007-11-15, whereas "2007-11-13T09:00/15T17:00" includes the start and end times. To explicitly include all of the start and end dates, the interval would be represented as "2007-11-13T00:00/15T24:00".

Repeating intervals

Repeating intervals are specified in section "4.5 Recurring time interval". They are formed by adding "R[n]/" to the beginning of an interval expression, where *R* is used as the letter itself and [n] is replaced by the number of repetitions. Leaving out the value for [n] means an unbounded number of repetitions. If the interval specifies the start (forms 1 and 2 above), then this is the start of the repeating interval. If the interval specifies the end but not the start (form 3 above), then this is the end of the repeating interval. For example, to repeat the interval of "P1Y2M10DT2H30M" five times starting at "2008-03-01T13:00:00Z", use "R5/2008-03-01T13:00:00Z/P1Y2M10DT2H30M".

Rnn/<interval>

R/<interval>

Truncated representations

ISO 8601:2000 allowed truncation (by agreement), where leading components of a date or time are omitted. Notably, this allowed two-digit years to be used and the ambiguous formats YY-MM-DD and YYMMDD. This provision was removed in ISO 8601:2004.

Usage

On the Internet, the World Wide Web Consortium (W3C) uses ISO 8601 in defining a profile of the standard that restricts the supported date and time formats to reduce the chance of error and the complexity of software.[19]

RFC 3339 defines a profile of ISO 8601 for use in Internet protocols and standards. It explicitly excludes durations and dates before the common era. The more complex formats such as week numbers and ordinal days are not permitted.[20]

RFC 3339 deviates from ISO 8601 in allowing a zero timezone offset to be specified as "-00:00", which ISO 8601 forbids. RFC 3339 intends "-00:00" to carry the connotation that it is not stating a preferred timezone, whereas the conforming "+00:00" or any non-zero offset connotes that the offset being used is preferred. This convention regarding "-00:00" is derived from earlier RFCs, such as RFC 2822 which uses it for timestamps in email headers. RFC 2822 made no claim that any part of its timestamp format conforms to ISO 8601, and so was free to use this convention without conflict. RFC 3339 errs in adopting this convention while also claiming conformance to ISO 8601.

ISO 8601 is referenced by several specifications, but the full range of options of ISO 8601 is not always used. For example, the various electronic program guide standards for TV, digital radio, etc. use several forms to describe points in time and durations. The ID3 audio meta-data specification also makes use

of a subset of ISO 8601.[21] The GeneralizedTime makes use of another subset of ISO 8601.

The ISO 8601 week date, as of 2006, appeared in its basic form on major brand commercial packaging in the United States. Its appearance depended on the particular packaging, canning, or bottling plant more than any particular brand. The format is particularly useful for quality assurance, so that production errors can be readily traced to work weeks, and products can be correctly targeted for recall.

Related standards

Australia	AS ISO 8601-2007
Austria	OENORM EN 28601
Belgium	NBN EN 28601
Brazil	NBR 5892:1989
Canada	CSA Z234.5:1989
China	GB/T 7408-2005
Czech Republic	ČSN ISO 8601
Denmark	DS/ISO 8601:2005
European Norm	EN 28601:1992
Finland	SFS-EN 28601
France	NF Z69-200; NF EN 28601:1993-06-01
Germany	DIN ISO 8601:2006-09 (replaced DIN EN 28601:1993-02); related: DIN 5008:2011-04
Greece	ELOT EN 28601
Hungary	MSZ ISO 8601:2003
Iceland	IST EN 28601:1992
India	IS 7900:2001
Ireland	IS/EN 28601:1993
Italy	UNI EN 28601
Japan	JIS X 0301-2002
Lithuania	LST ISO 8601:1997
Luxembourg	ITM-EN 28601
Netherlands	NEN ISO 8601 & NEN EN 28601 & NEN 2772
Norway	NS-ISO 8601
People's Republic of China	GB/T 7408-2005
Poland	PN-90/N-01204
Portugal	NP EN 28601

Russia	ГОСТ ИСО 8601-2001 (current), ГОСТ 7.64-90 (obsolete)
South Africa	ARP 010:1989
Spain	UNE EN 28601
Sweden	SS-ISO 8601
Switzerland	SN ISO 8601:2005-08
Taiwan	CNS 7648
Thailand	TIS 1111:2535 in 1992
Turkey	TS ISO 8601
UK	BS ISO 8601:2004, BS EN 28601 (1989-06-30)
Ukraine	ДСТУ ISO 8601:2010
US	ANSI INCITS 30-1997 (R2008) and NIST FIPS PUB 4-2
Vietnam	TCVN 6398-1:1998

See also

Media related to ISO 8601 at Wikimedia Commons

- Astronomical year numbering
- Date and time representation by country

Notes and references

1. ^ a b ISO, FAQ: *Numeric representation of Dates and Time (http://www.iso.org/iso/iso8601)*
2. ^ *ISO 8601:2004(E)*, ISO, 2004-12-01, "Annex A ... From that concept representations of all other date and time values were logically derived; thus, ISO 2014, ISO 3307 and ISO 4031 have been superseded.... Identification of a particular date by means of ordinal dates (ISO 2711) and by means of the week numbering system (ISO 2015) were alternative methods that the basic concept of this International Standard could also encompass; thus, ISO 2015 and ISO 2711 have now been superseded."
3. ^ TC 154 Processes, data elements and documents in commerce, industry and administration (http://www.iso.org/iso/standards_development/technical_committees/list_of_iso_technical_committees/iso_technical_committee.htm?commid=53186), Technical committees – ISO
4. ^ ISO 8601:2004 clause 2.3.3 basic format
5. ^ a b ISO 8601 uses the word *accuracy*, not *precision*, in the relevant clauses, e.g: 2.3.7 representation with reduced accuracy.
6. ^ Doggett, L. E. (1992). "Calendars" (http://astro.nmsu.edu/~lhuber/leaphist.html). In P. K. Seidelmann. *Explanatory Supplement to the Astronomical Almanac.* Sausalito, California: University Science Books. p. 580. ISBN 0-935702-68-7. "The Gregorian calendar today serves as an international standard for civil use."

7. ^ *ISO 8601:2004(E)*. ISO. 2004-12-01. p. 13.
8. ^ *ISO 8601:2004(E)*. ISO. 2004-12-01. "3.5 Expansion ... By mutual agreement of the partners in information interchange, it is permitted to expand the component identifying the calendar year, which is otherwise limited to four digits. This enables reference to dates and times in calendar years outside the range supported by complete representations, i.e. before the start of the year [0000] or after the end of the year [9999]."
9. ^ ISO 8601:2004 clauses 3.4.2, 4.1.2.4
10. ^ For example, see Annex B.1.1 of the standard.
11. ^ ISO 8601:2004 clause 4.2.2.3 Representations with reduced accuracy
12. ^ "NIST TechBeat 2006-11-22" (http://www.nist.gov/public_affairs/techbeat/tb2006_1122.htm#decimal). NIST. 2006-11-22. Retrieved 2012-05-06. "Decimals Score a Point on International Standards ... It soon may be possible to write international standards documents with decimal points in them."
13. ^ *ISO 8601:2004(E)*, ISO, 2004-12-01, "4.2.2.4 ... the decimal fraction shall be divided from the integer part by the decimal sign specified in ISO 31-0, i.e. the comma [,] or full stop [.]. Of these, the comma is the preferred sign."
14. ^ RFC 3339 – Unknown local offset convention
15. ^ "ISO 8601:2004(E)". ISO. 2004-12-01. "4.3.2 NOTE: By mutual agreement of the partners in information interchange, the character [T] may be omitted in applications where there is no risk of confusing a date and time of day representation with others defined in this International Standard."
16. ^ ISO 8601:2004 clause 4.4.3.3 Alternative format
17. ^ "Info on ISO 8601, the date and time representation standard" (http://www.cs.tut.fi/~jkorpela/iso8601.html). Cs.tut.fi. Retrieved 2012-08-29.
18. ^ "ISO 8601 - Getting with the Times (and Dates)" (http://www.hydrogold.com.au/news_2012.html#iso8601). Hydrogold. 2012-01-01. Retrieved 2013-08-13.
19. ^ Note about Date and Time Formats to W3C from Reuters (http://www.w3.org/TR/NOTE-datetime)
20. ^ RFC 3339, section 5.6
21. ^ Nilsson, M. (2000-11-01). "ID3 tag version 2.4.0 - Main Structure" (http://www.id3.org/id3v2.4.0-structure). id3.org. pp. §4. Retrieved 2009-09-27.

External links

- ISO's catalog entry for ISO 8601:2004 (http://www.iso.org/iso/catalogue_detail?csnumber=40874)
- Use international date format (ISO) – Quality Web Tips (http://www.w3.org/QA/Tips/iso-date) The World Wide Web Consortium (W3C)
- ISO 8601 (http://www.dmoz.org/Science/Reference/Standards/Individual_Standards/ISO_8601) at DMOZ
- ISO 8601 summary by Markus Kuhn (http://www.cl.cam.ac.uk/~mgk25/iso-time.html)
- Summary of 8601 by ISO (https://web.archive.org/web/20110614235056/http://www.iso.org/iso/support/faqs/faqs_widely_used_standards/widely_used_standards_other/date_and_time_format.htm) at the Wayback Machine (archived 14 June 2011)
- Technical Committee ISO/TC 154 (http://isotc.iso.org/livelink/livelink/fetch/2000/2122/138351/138352/customview.html?func=ll&objId=138352&objAction=browse&sort=name), Processes, data elements and documents in commerce, industry and administration.
- The Mathematics of the ISO 8601 Calendar (http://www.staff.science.uu.nl/~gent0113/calendar/isocalendar.htm)
- W3C Specification about UTC Date and Time (http://www.w3.org/TR/NOTE-datetime) and IETF Internet standard RFC 3339, based on ISO 8601

Implementation overview

- ISO 8601 Implementation Around The World (http://www.qsl.net/g1smd/isoimp.htm)

Retrieved from "http://en.wikipedia.org/w/index.php?title=ISO_8601&oldid=618774585"

Categories: Specific calendars | ISO standards | Date and time representation | Time measurement systems

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NOTE-datetime

Date and Time Formats

Submitted to W3C 15 September 1997

This version:
http://www.w3.org/TR/1998/NOTE-datetime-19980827
Newest version:
http://www.w3.org/TR/NOTE-datetime
Authors:
Misha Wolf <misha.wolf@reuters.com>
Charles Wicksteed <charles.wicksteed@reuters.com>
Document Status

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This document is a submission to W3C from Reuters Limited. Please see Acknowledged Submissions to W3C regarding its disposition.

Comments on this document should be sent to datetime-comments@w3.org.

Abstract

This document defines a profile of ISO 8601, the International Standard for the representation of dates and times. ISO 8601 describes a large number of date/time formats. To reduce the scope for error and the complexity of software, it is useful to restrict the supported formats to a small number. This profile defines a few date/time formats, likely to satisfy most requirements.

Introduction

The International Standard for the representation of dates and times is ISO 8601. Its full reference number is ISO 8601 : 1988 (E), and its title is "Data elements and interchange formats - Information interchange - Representation of dates and times". A discussion of ISO 8601 has been written by Markus Kuhn.

ISO 8601 describes a large number of date/time formats. For example it defines Basic Format, without punctuation, and Extended Format, with punctuation, and it allows elements to be omitted. This profile defines a restricted range of formats, all of which are valid ISO 8601 dates and times. The aim is to simplify the use of ISO 8601 in World Wide Web-related standards, and to avoid the need for the developers and users of these standards to obtain copies of ISO 8601 itself.

A particular problem with ISO 8601 is that it allows the century to be omitted from years, which is likely to cause trouble as we approach the year 2000. This profile avoids the problem by expressing the year as four digits in all cases.

This profile may be adopted by standards which require an unambiguous representation of dates and times. As different standards have their own requirements regarding granularity and flexibility, this profile offers a number of options. An adopting standard must specify which of these options it permits.

Formats

Different standards may need different levels of granularity in the date and time, so this profile defines six levels. Standards that reference this profile should specify one or more of these granularities. If a given standard allows more than one granularity, it should specify the meaning of the dates and times with reduced precision, for example, the result of comparing two dates with different precisions.

The formats are as follows. Exactly the components shown here must be present, with exactly this punctuation. Note that the "T" appears literally in the string, to indicate the beginning of the time element, as specified in ISO 8601.

```
   Year:
      YYYY (eg 1997)
   Year and month:
      YYYY-MM (eg 1997-07)
   Complete date:
      YYYY-MM-DD (eg 1997-07-16)
   Complete date plus hours and minutes:
      YYYY-MM-DDThh:mmTZD (eg 1997-07-16T19:20+01:00)
   Complete date plus hours, minutes and seconds:
      YYYY-MM-DDThh:mm:ssTZD (eg 1997-07-16T19:20:30+01:00)
   Complete date plus hours, minutes, seconds and a decimal fraction of a
second
      YYYY-MM-DDThh:mm:ss.sTZD (eg 1997-07-16T19:20:30.45+01:00)
```

where:

```
     YYYY = four-digit year
     MM   = two-digit month (01=January, etc.)
```

```
DD   = two-digit day of month (01 through 31)
hh   = two digits of hour (00 through 23) (am/pm NOT allowed)
mm   = two digits of minute (00 through 59)
ss   = two digits of second (00 through 59)
s    = one or more digits representing a decimal fraction of a second
TZD  = time zone designator (Z or +hh:mm or -hh:mm)
```

This profile does not specify how many digits may be used to represent the decimal fraction of a second. An adopting standard that permits fractions of a second must specify both the minimum number of digits (a number greater than or equal to one) and the maximum number of digits (the maximum may be stated to be "unlimited").

This profile defines two ways of handling time zone offsets:

1. Times are expressed in UTC (Coordinated Universal Time), with a special UTC designator ("Z").
2. Times are expressed in local time, together with a time zone offset in hours and minutes. A time zone offset of "+hh:mm" indicates that the date/time uses a local time zone which is "hh" hours and "mm" minutes ahead of UTC. A time zone offset of "-hh:mm" indicates that the date/time uses a local time zone which is "hh" hours and "mm" minutes behind UTC.

A standard referencing this profile should permit one or both of these ways of handling time zone offsets.

Examples

`1994-11-05T08:15:30-05:00` corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time.

`1994-11-05T13:15:30Z` corresponds to the same instant.

Acknowledgments

This document draws on Chris Newman's Internet Draft "Date and Time on the Internet" (draft-newman-datetime-01.txt).

Electronic Patent Application Fee Transmittal	
Application Number:	14297616
Filing Date:	05-Jun-2014
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Filer:	Ashok Tankha
Attorney Docket Number:	CellSpin_04Con8_US
Filed as Small Entity	

Utility under 35 USC 111(a) Filing Fees

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($)
Miscellaneous:				
Statutory or Terminal Disclaimer	1814	1	160	160
		Total in USD ($)		**160**

Electronic Acknowledgement Receipt	
EFS ID:	19772309
Application Number:	14297616
International Application Number:	
Confirmation Number:	7021
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Correspondence Address:	Ashok Tankha - 36 Greenleigh drive - Sewell NJ 08080 US 856-266-5145 ash@ipprocurement.com
Filer:	Ashok Tankha
Filer Authorized By:	
Attorney Docket Number:	CellSpin_04Con8_US
Receipt Date:	05-AUG-2014
Filing Date:	05-JUN-2014
Time Stamp:	03:14:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$160

RAM confirmation Number	7149
Deposit Account	503291
Authorized User	TANKHA, ASHOK

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1	Transmittal Letter	CellSpin_04Con8_US_Transmittal_sb0021.pdf	264004 a6455646a3ef4ac50db40ebd5493b255b6953cf2	no	2
Warnings:					
Information:					
2	Amendment/Req. Reconsideration-After Non-Final Reject	CellSpin_04Con8_US_Response.pdf	217813 4891774f0b16c893d9e5a50a69b0ca983cfaff92	no	11
Warnings:					
Information:					
3	Terminal Disclaimer Filed	CellSpin_04Con8_US_Terminal_Disclaimer_sb0025.pdf	342253 a2a1c19d2309b086b992c995edf2e36ba8b1a596	no	2
Warnings:					
Information:					
4	Miscellaneous Incoming Letter	Exhibit_A.pdf	125094 0beed2f52b8cc38336cf15a049c7cc978aed9333	no	11
Warnings:					
Information:					
5	Miscellaneous Incoming Letter	Exhibit_B.pdf	69266 c3129aaee881025ab18915918978c192ffeda076	no	9
Warnings:					
Information:					
6	Miscellaneous Incoming Letter	Exhibit_C.pdf	40747 9c0d1c09e6c9fde8384d10b28dd81a8659763105	no	3
Warnings:					
Information:					
7	Miscellaneous Incoming Letter	Exhibit_D.pdf	161108 b4cdc98d754cc8f794f2858ed03c685ef8c3f569	no	11
Warnings:					
Information:					

8	Miscellaneous Incoming Letter	Exhibit_E.pdf	116643 c2a9a5c6d8fd7fe53da692ca302fd61dae0feb6d	no	12
Warnings:					
Information:					
9	Miscellaneous Incoming Letter	Exhibit_F.pdf	30878 8a6c223505550094ee11c8fbb20bb26ad3570f5d	no	3
Warnings:					
Information:					
10	Fee Worksheet (SB06)	fee-info.pdf	29944 fca7dc90a62a8be6ec04971c0bb882c542b0dbfa	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	1397750	

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Doc Code: TRAN.LET

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	14/297,616
Filing Date	06/05/2014
First Named Inventor	Gurvinder Singh
Art Unit	2478
Examiner Name	Nooristany, Sulaiman
Attorney Docket Number	CellSpin_04Con8_US

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☑ Amendment/Reply
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  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
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Remarks

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Firm Name	Lipton, Weinberger & Husick		
Signature	/a tankha/		
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Date	08-05-2014	Reg. No.	33802

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Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	14/297,616	SINGH ET AL.	

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Docket Number (Optional)
CellSpin_04Con8_US

In re Application of: Gurvinder Singh

Application No.: 14/297,616

Filed: 05 June 2014

For: Automatic Multimedia Upload For Publishing Data And Multimedia Content

The applicant, Cellspinsoft Inc., owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 8756336 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

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	856-266-5145
Title	Telephone Number

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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.

PTO/SB/25 (08-11)
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TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION

Docket Number (Optional)
CellSpin_04Con8_US

In re Application of: Gurvinder Singh, Marcos Klein and Vince Laviano

Application No.: 14/297,616

Filed: 06/05/2014

For: Automatic Multimedia Upload For Publishing Data And Multimedia Content

The owner*, Cellspinsoft Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending **reference** Application Number 14/273,546, filed 09 May 2014, as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the **reference** application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said **reference** application, "as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application," in the event that: any such patent: granted on the pending **reference** application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☑ The undersigned is an attorney or agent of record. Reg. No. 33802

/a tankha/ — Signature
07 August 2014 — Date

Ashok Tankha
Typed or printed name

856-266-5145
Telephone Number

☐ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this statement. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. 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 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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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 Acknowledgement Receipt	
EFS ID:	19797822
Application Number:	14297616
International Application Number:	
Confirmation Number:	7021
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Correspondence Address:	Ashok Tankha - 36 Greenleigh drive - Sewell NJ 08080 US 856-266-5145 ash@ipprocurement.com
Filer:	Ashok Tankha
Filer Authorized By:	
Attorney Docket Number:	CellSpin_04Con8_US
Receipt Date:	07-AUG-2014
Filing Date:	05-JUN-2014
Time Stamp:	03:30:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	CellSpin_04Con8_US_Transmittal_sb0021.pdf	264765 daa203fbf6a68fe120f11f1a7fd197bfcc3daf6a	no	2
Warnings:					
Information:					
2	Terminal Disclaimer Filed	CellSpin_04Con8_US_Terminal_Disclaimer.pdf	160030 eabeda1c646754690adeb27a261891550ba5793b	no	2
Warnings:					
Information:					
3	Terminal Disclaimer Filed	CellSpin_04Con8_US_Terminal_Disclaimer_sb0025.pdf	342324 c43e96768b99d285e2db27c6a899c1af47aeee74	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	767119		

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.

<u>New Applications Under 35 U.S.C. 111</u>
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.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

Doc Code: TRAN.LET

Document Description: Transmittal Letter

PTO/SB/21 (07-09)
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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	14/297,616
Filing Date	06/05/2014
First Named Inventor	Gurvinder Singh
Art Unit	2478
Examiner Name	Nooristany, Sulaiman
Attorney Docket Number	CellSpin_04Con8_US

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☑ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please Identify below):

Remarks

Terminal disclaimer fees were previously submitted. As per examiner's request the terminal disclaimers are resubmitted.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Lipton, Weinberger & Husick		
Signature	/a tankha/		
Printed name	Ashok Tankha		
Date	07 Aug 2014	Reg. No.	33802

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	/a tankha/		
Typed or printed name	Ashok Tankha	Date	07 Aug 2014

This collection of information is required by 37 CFR 1.5. 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 and1.14. This collection is estimated to 2 hours 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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PTO/AIA/96 (08-12)
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STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Gurvinder Singh et al.

Application No./Patent No.: 14297616 Filed/Issue Date: 05 June 2014

Titled: Automatic Multimedia Upload For Publishing Data And Multimedia Content

CellSpinSoft Inc., a Incorporation

(Name of Assignee) (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 033403, Frame 0647, 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.

This collection of information is required by37 CFR3.73(b). The information is required toobtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentialityis governed by35 U.S.C. 122and 37 CFR1.11 and1.14. Thiscollection is estimated to take 12 minutes to complete, including gathering, preparing, and submittingthe 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 tothe 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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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

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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.

/a tankha/	07 August 2014
Signature	Date
Ashok Tankha	33802
Printed or Typed Name	Title or Registration Number

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Electronic Acknowledgement Receipt	
EFS ID:	19797766
Application Number:	14297616
International Application Number:	
Confirmation Number:	7021
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Correspondence Address:	Ashok Tankha - 36 Greenleigh drive - Sewell NJ 08080 US 856-266-5145 ash@ipprocurement.com
Filer:	Ashok Tankha
Filer Authorized By:	
Attorney Docket Number:	CellSpin_04Con8_US
Receipt Date:	07-AUG-2014
Filing Date:	05-JUN-2014
Time Stamp:	02:16:17
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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	Assignee showing of ownership per 37 CFR 3.73.	CellSpin_04Con8_US_37_CFR_373c.pdf	118296 7e88dfed117e2d760f66d64e7cd78f90730cf7ea	no	3
Warnings:					
Information:					
		Total Files Size (in bytes):	118296		

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<u>New Applications Under 35 U.S.C. 111</u>
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.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	14/297,616	SINGH ET AL.	

Document Code - DISQ	Internal Document – DO NOT MAIL

TERMINAL DISCLAIMER	☒ APPROVED	☐ DISAPPROVED
Date Filed : Both tds 08/05/2014	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:

Dorethea Lawrence

U.S. Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE

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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US

CONFIRMATION NO. 7021

Ashok Tankha
36 Greenleigh drive
Sewell, NJ 08080

PUBLICATION NOTICE

OC000000070982016

Title: Automatic Multimedia Upload For Publishing Data And Multimedia Content

Publication No.US-2014-0289305-A1
Publication Date:09/25/2014

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 Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, 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 http://pair.uspto.gov/. 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

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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590 10/10/2014
ASHOK TANKHA
36 GREENLEIGH DRIVE
SEWELL, NJ 08080

EXAMINER
NOORISTANY, SULAIMAN

ART UNIT	PAPER NUMBER
2415	

DATE MAILED: 10/10/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US	7021

TITLE OF INVENTION: Automatic Multimedia Upload For Publishing Data And Multimedia Content

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	01/12/2015

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: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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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)

7590 10/10/2014
ASHOK TANKHA
36 GREENLEIGH DRIVE
SEWELL, NJ 08080

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US	7021

TITLE OF INVENTION: Automatic Multimedia Upload For Publishing Data And Multimedia Content

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	01/12/2015

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOORISTANY, SULAIMAN	2415	709-202000

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 03-02 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 has been filed for recordation as set forth in 37 CFR 3.11. 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. The following fee(s) are submitted:
❑ Issue Fee
❑ Publication Fee (No small entity discount permitted)
❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
❑ A check is enclosed.
❑ Payment by credit card. Form PTO-2038 is attached.
❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
❑ Applicant certifying micro entity status. See 37 CFR 1.29 — 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.
❑ Applicant asserting small entity status. See 37 CFR 1.27 — 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.
❑ Applicant changing to regular undiscounted fee 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. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US	7021

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SEWELL, NJ 08080

EXAMINER
NOORISTANY, SULAIMAN

ART UNIT	PAPER NUMBER
2415	

DATE MAILED: 10/10/2014

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 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, 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.

Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	14/297,616	SINGH ET AL.	
	Examiner	Art Unit	
	SULAIMAN NOORISTANY	2478	

All participants (applicant, applicant's representative, PTO personnel):

(1) *SULAIMAN NOORISTANY*. (3)_____.

(2) *Ashok Tankha (Reg. # 33,802)*. (4)_____.

Date of Interview: *19 September 2014*.

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: _____.

Identification of prior art discussed: _____.

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...)

Applicant agreed that the examiner's amendment, authorized by the above attorney, would place the application in condition for allowance.

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

/SULAIMAN NOORISTANY/
Primary Examiner, Art Unit 2478

Notice of Allowability	Application No. 14/297,616	Applicant(s) SINGH ET AL.	
	Examiner SULAIMAN NOORISTANY	Art Unit 2478	AIA (First Inventor to File) Status No

-- 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 *8/5/14, 9/19/14*.
   ☐ 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 *1-5,7-10,12-16 and 18-21*. 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 *9/19/14* .
5. ☒ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/SULAIMAN NOORISTANY/
Primary Examiner, Art Unit 2478

The present application is being examined under the pre-AIA first to invent provisions.

Examiner 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 a telephone interview with Ashok Tankha (Reg. # 33,802) on 9/19/2014.

Claims Are Amended As Follows:

Claim 1 (Currently Amended): A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on the Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into data segments at an application layer level, wherein data in said data segments comprises one or more of said file data and data associated with said file data;

applying a segment identifier to each of said data segments at the application layer level, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment;

applying a user identifier to each of said data segments for the destination web service at the application layer level, wherein said user identifier uniquely identifies a particular user of the web service;

transferring a data segment along with said user identifier and said segment identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said data segment transfer;

repeating the step of data segment transfer and the step of receiving the reply message, until all the data segments have been transferred to the web service successfully, wherein if segmented file transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, corresponding to asking the web service about the segmented file data the web service has successfully received, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to indicate segmented file data said web service has successfully received, for said user identifier; and

resuming, the segmented file transfer based on the synchronization reply received, for said user identifier;

receiving, at the web service, all the data segments along with said user identifier and segment identifiers for said file transfer;

storing, at the web service, the received file data segments and segment identifiers for said user identifier; and

making available, at the web service, the segmented data received from the Bluetooth enabled mobile device for public or private consumption over the internet.

Claim 2 (Original): The method of claim 1, wherein the data associated with file data is at least one of name of the file, size of the file, and type of file.

Claim 3 (Original): The method of claim 1, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

Claim 4 (Original): The method of claim 1, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

Claim 5 (Previously Canceled/Re-entered): The method of claim 1, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

Claim 6 (Canceled).

Claim 7 (Currently Amended): A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on a Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into a first data segment and a second data segment at an application layer level, wherein the second data segment comprises file data and the first data segment comprises data associated with file data, [[and]] wherein the data associated with file data is at least one of name of the file, size of the file, and type of the file;

applying a user identifier to said first data segment at the application layer level, wherein the user identifier uniquely identifies a particular user of a web service;

transferring said first data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said first data segment transfer;

applying said user identifier to said second data segment at the application layer level;

transferring said second data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said second data segment transfer, wherein if said second data segment transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to the successfully received data of said second data segment by said web service, for said user identifier; and

resuming, the segmented file transfer by transferring remaining data of the second data segment based on the synchronization reply received, wherein resuming the segmented file transfer of remaining data comprises, the software module, performing:

creating one or more data segments at the application layer level, wherein the one or more data segments comprise remaining data of the second data segment;

applying a segment identifier to each of said one or more data segments at the application layer level, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment;

applying said user identifier to each of said one or more data segments at the application layer level; and

transferring said one or more data segments along with said user identifier and said corresponding segment identifier to the web service;

receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer;

storing, at the web service, the received file data segments and segment identifiers for a user identifier; and

making available, at the web service, the segmented data received from the Bluetooth enabled mobile device for public or private consumption over the internet, wherein one or more portions of the data correspond to a particular user of the web services.

Claim 8 (Original): The method of claim 7, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

Claim 9 (Original): The method of claim 7, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

Claim 10 (Previously Canceled/Re-entered): The method of claim 7, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

Claim 11 (Canceled).

Claim 12 (Currently Amended): A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on the Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into data segments at an application layer level, wherein data in said data segments comprises one or more of said file data and data associated with said file data;

applying a segment identifier to each of said data segments at the application layer level, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment;

applying a user identifier to each of said data segments for the destination web service at the application layer level, wherein said user identifier uniquely identifies a particular user of the web service;

transferring a data segment along with said user identifier and said segment identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said data segment transfer;

repeating the step of data segment transfer and the step of receiving the reply message, until all the data segments have been transferred to the web service successfully, wherein if segmented file transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, corresponding to asking the web service about the segmented file data the web service has successfully received, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to indicate segmented file data said web service has successfully received, for said user identifier; and

resuming, the segmented file transfer based on the synchronization reply received, for said user identifier;

receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer;

reassembling the received file data segments automatically using segment identifiers and a user identifier, at the application layer level, at the web service; and

making available, at the web service, the reassembled data file, for public or private consumption over the internet.

Claim 13 (Original): The method of claim 12, wherein the data associated with file data is at least one of name of the file, size of the file, and type of file.

Claim 14 (Original): The method of claim 12, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

Claim 15 (Original): The method of claim 12, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

Claim 16 (Previously Canceled/Re-entered): The method of claim 12, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

Claim 17 (Canceled).

Claim 18 (Currently Amended): A method of segmented file transfer from a Bluetooth enabled mobile device to a web service, the method comprising:

providing a software module on a Bluetooth enabled mobile device, the software module, performing;

determining size of a file to be transferred;

segmenting said file into a first data segment and a second data segment at an application layer level, wherein the second data segment comprises file data and the first data segment comprises data associated with file data, and wherein the data associated with file data is at least one of name of the file, size of the file, and type of the file;

applying a user identifier to said first data segment at the application layer level, wherein the user identifier uniquely identifies a particular user of a web service;

transferring said first data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said first data segment transfer;

applying said user identifier to said second data segment at the application layer level;

transferring said second data segment along with said user identifier to the web service;

receiving a reply message from the web service, corresponding to successful completion of said second data segment transfer, wherein if said second data segment transfer is interrupted, the software module further performs:

sending, a synchronization request to the web service from the application layer level, for said user identifier, after a network connection to the web service is restored;

receiving, a synchronization reply back from the web service at the application layer level, corresponding to the successfully received data of said second data segment by said web service, for said user identifier; and

resuming, the segmented file transfer by transferring remaining data of the second data segment based on the synchronization reply received, wherein resuming the segmented file transfer of remaining data comprises, the software module, performing:

creating one or more data segments at the application layer level, wherein the one or more data segments comprise remaining data of the second data segment;

applying a segment identifier to each of said one or more data segments at the application layer level, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment;

applying said user identifier to each of said one or more data segments at the application layer level; and

transferring said one or more data segments along with said user identifier and said corresponding segment identifier to the web service;

receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer;

reassembling the received file data segments automatically using segment identifiers and a user identifier, at the application layer level, at the web service; and

making available, at the web service, the reassembled data file, for public or private consumption over the internet.

Claim 19 (Original): The method of claim 18, wherein said file data comprises one or more of audio data, video data, image data, text data, or digital data.

Claim 20 (Original): The method of claim 18, wherein the user identifier comprises one or more elements from user information, and wherein the one or more elements of the user information comprise user-name, user-password, user-device-information, user settings, or user preferences.

Claim 21 (Previously Canceled/Re-entered). The method of claim 18, wherein the application layer is defined as one of following, the layer 7 in the OSI layer stack, or the application layer of the Internet protocol suite.

Claim 22 (Canceled).

Allowable Subject Matter

Claims 1-5, 7-10, 12-16, 18-21 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

None of the prior art of the record explicitly teaches or fairly suggests all of the claimed limitation, especially the limitation wherein providing a software module on the Bluetooth enabled mobile device, the software module, performing; determining size of a file to be transferred; segmenting said file into data segments at an application layer level, wherein data in said data segments comprises one or more of said file data and data associated with said file data; applying a segment identifier to each of said data segments at the application layer level, wherein the segment identifier corresponds to the content range of said file data that is being transferred in a given data segment; applying a user identifier to each of said data segments for the destination web service at the application layer level, wherein said user identifier uniquely identifies a particular user of the web service; transferring a data segment along with said user identifier and said segment identifier to the web service; receiving a reply message from the web service, corresponding to successful completion of said data segment transfer; repeating the step of data segment transfer and the step of receiving the reply message, until all the data segments have been transferred to the web service successfully, wherein if segmented file transfer is interrupted, the software module further performs: sending, a synchronization request to the web service from the application layer level, corresponding to asking the web service about the segmented file data the web service has successfully received, for said user identifier, after a network connection to the web service is restored; receiving, a synchronization reply back from the web service at the application layer level, corresponding to indicate segmented file data said web service has successfully received, for said user identifier; and resuming, the segmented file transfer based on the synchronization reply received, for said user identifier; receiving, at the web service, the data segments along with said user identifier and said segment identifiers for a given file transfer; reassembling the received file data segments automatically using segment identifiers and a user identifier, at the application layer level, at the web service; and making available, at the web service, the reassembled data file, for public or private consumption over the internet.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sulaiman Nooristany whose telephone number is (571) 270-1929. The examiner can normally be reached on M-F from 9 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris, can be reached on (571) 272-3123. 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. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SULAIMAN NOORISTANY/
Primary Examiner, Art Unit 2478

Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	14/297,616	SINGH ET AL.	
	Examiner	Art Unit	
	SULAIMAN NOORISTANY	2478	

All participants (applicant, applicant's representative, PTO personnel):

(1) *SULAIMAN NOORISTANY*. (3)_____.

(2) *Ashok Tankha (Reg. # 33,802)*. (4)_____.

Date of Interview: *19 September 2014*.

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: _____.

Identification of prior art discussed: _____.

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...)

Applicant agreed that the examiner's amendment, authorized by the above attorney, would place the application in condition for allowance.

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

/SULAIMAN NOORISTANY/ Primary Examiner, Art Unit 2478	

Notice of References Cited	Application/Control No. 14/297,616	Applicant(s)/Patent Under Reexamination SINGH ET AL.	
	Examiner SULAIMAN NOORISTANY	Art Unit 2478	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0157960 A1	08-2003	Kennedy, Richard	455/556
*	B	US-2003/0217189 A1	11-2003	Kelley et al.	709/318
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

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

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

CLAIM		DATE								
Final	Original	07/10/2014	09/19/2014							
1	1	✓	=							
2	2	✓	=							
3	3	✓	=							
4	4	✓	=							
5	5	✓	=							
	6	✓	-							
6	7	✓	=							
7	8	✓	=							
8	9	✓	=							
9	10	✓	=							
	11	✓	-							
10	12	✓	=							
11	13	✓	=							
12	14	✓	=							
13	15	✓	=							
14	16	✓	=							
	17	✓	-							
15	18	✓	=							
16	19	✓	=							
17	20	✓	=							
18	21	✓	=							
	22	✓	-							

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

CPC						
Symbol					**Type**	**Version**
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CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
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NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 18	
/SULAIMAN NOORISTANY/ Primary Examiner.Art Unit 2478 (Primary Examiner)	09/19/2014 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 4

U.S. Patent and Trademark Office

Part of Paper No. 20140919

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION									
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED				
709	219	G	0	6	F	15 / 16 (2006.01.01)					

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				

NONE (Assistant Examiner)	(Date)	Total Claims Allowed: 18	
/SULAIMAN NOORISTANY/ Primary Examiner.Art Unit 2478 (Primary Examiner)	09/19/2014 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 4

U.S. Patent and Trademark Office

Part of Paper No. 20140919

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

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

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1		17												
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3	3	16	19												
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14	16														

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 18	
/SULAIMAN NOORISTANY/ Primary Examiner.Art Unit 2478 (Primary Examiner)	09/19/2014 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 4

U.S. Patent and Trademark Office

Part of Paper No. 20140919

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	0	"13922219"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:04
S2	0	"13/922219"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S3	4	"2003015790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S4	2	"20030015790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S5	5	"20030157960"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:05
S6	0	"200300157960"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/08/08 17:06
S7	0	"13922219"	USPAT	OR	OFF	2013/08/09 10:04
S8	189979	bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:27
S9	15000	S8 and buffer$3 near6 (data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:27

S10	5	S9 and segment$3 near3 data near identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:28
S11	191138	bluetooth or blue-tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:38
S12	23	S11 and segment$3 near3 data near identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:38
S13	191138	(bluetooth or blue-tooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:46
S14	16	S13 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:47
S15	75	buffer and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:49
S16	191142	blue$tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:50
S17	1	S13 and buffer and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:50
S18	6	S13 and (reassembl$3 same segment$3 same Identifier)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 10:52
S19	68	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:01

S20	1	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) same bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:01
S21	67	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) and bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:02
S22	0	S13 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or sequence)) with bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/08/09 11:02
S23	0	"13740214"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:32
S24	0	"13/740214"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:33
S25	2	"12333303"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:33
S26	506531	(partition$1 or brak$3 near down or segment$3) same large (data or file$1 or content$1) same (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:51
S27	2030	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) same (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:51
S28	2	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) same (segment$1) same (bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:52
S29	15	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) and (segment$1) same (bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:53

S30	15	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) and (segment$1) same (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 11:54
S31	2405	(partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) and (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:10
S32	122	S31 and (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:10
S33	0	S32 and uder near6 (identifier$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S34	0	S32 and uder near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S35	35	S32 and user near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S36	3	S32 and user near6 (identif$4) same segment$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:11
S37	61	S32 and (user or device) near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:14
S38	35	S35 and (user or device) near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:15
S39	2	"8027668".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:47

S40	3	"20090023428"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 14:48
S41	2	"20080109317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/09/19 15:53
S42	195282	(blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:56
S43	484	poll near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:57
S44	34	S43 and push near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:58
S45	0	S44 and S42	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 15:59
S46	5217	(poll or push) near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S47	426	S46 and (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S48	67	S43 and (blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14
S49	0	S48 and push near mode	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 16:14

S50	195282	(blue-tooth or bluetooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:23
S51	161	S50 and (interrupt$3 near6 (data or packet$1)) same synch$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:28
S52	1	S50 and (interrupt$3 near6 (data or packet$1)) same synch$6 same segment$1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:29
S53	0	S51 and (synch$6 same resum$3 same transfer$3 same segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:40
S54	0	S50 and (synch$6 same resum$3 same transfer$3 same segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:40
S55	100	S50 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S56	79	S51 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S57	0	S51 and (synch$6 same resum$3 near6 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S58	0	S51 and (synch$6 same resum$3 near15 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S59	0	S51 and (synch$6 same resum$3 near20 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41

S60	0	S51 and (synch$6 same resum$3 near30 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:41
S61	2601	(interrupt$3 near6 (data or packet$1)) same synch$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S62	155	S61 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S63	39	S61 and (synch$6 same resum$3 near6 transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S64	1	S61 and (synch$6 same resum$3 near6 transfer$3 same segment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:44
S65	0	S61 and (synch$6 same resum$3 near6 transfer$3 same last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:46
S66	78	S61 and (resum$3 near6 transfer$3 same last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:46
S67	0	S61 and (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:46
S68	0	S61 and (resum$3 near6 transfer$3 near15 last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S69	0	S61 and (resum$3 near6 transfer$3 near15 last near15 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47

S70	78	S61 and (resum$3 near6 transfer$3 same last near15 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S71	78	S61 and (resum$3 near6 transfer$3 same last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S72	77	S71 and bluetooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:47
S73	10	(interrupt$3 near6 (data or packet$1)) same (resum$3 near6 transfer$3 same last near15 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/09/19 21:48
S74	0	"13922227"	USPAT	OR	OFF	2014/01/03 16:28
S75	1	"13922227"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:28
S76	183133	(".in.Singh" or Klein or Laviano)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:29
S77	129628	(Singh or Klein or Laviano).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:29
S78	1120	S77 and blue$tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:29
S79	500	S78 and (user or device) near6 (identif$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:30
S80	208	S78 and ((user or device) near6 (identif$4)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/01/03 16:30

			DERWENT; IBM_TDB			
S81	3	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:31
S82	0	(709/230.ccls or "709"/$.ccls.).in. and ((resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment)))	USPAT	OR	ON	2014/01/03 16:33
S83	74809	(709/230.ccls or "709"/$.ccls.)	USPAT	OR	ON	2014/01/03 16:33
S84	74809	(709/230.ccls. or "709"/$.ccls.)	USPAT	OR	ON	2014/01/03 16:33
S85	11228	S84 and ((user or device) near6 (identif$4)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/01/03 16:33
S86	1287	S85 and blue$tooth	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:33
S87	0	S86 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/03 16:34
S91	0	"14109972"	USPAT	OR	ON	2014/03/19 19:38
S92	0	"14/109972"	USPAT	OR	ON	2014/03/19 19:38
S93	5279	g06f15/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/19 19:38
S94	0	S93 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/03/19 19:39
S95	389	S93 and (bluetooth or blue-tooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/03/19 19:39
S96	0	S95 and ((reassembl$3 or rearrang$3) same (partition$3 or segment$3) same (identifier or	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2014/03/19 19:39

		sequence)) same bluetooth	JPO; DERWENT; IBM_TDB			
S97	10	S93 and (partition$1 or brak$3 near down or segment$3) same large near (data or file$1 or content$1) same (segment$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/19 19:39
S98	2	S93 and (synch$6 same resum$3 same transfer$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/19 19:40
S105	0	pair$3 near6 (short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:18
S106	146	(short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:18
S107	0	establish$4 same pair$3 near devices same (short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:19
S108	146	(short near range or bluethooth or blue-tooth) same (hadshake or ACK or acknowledg$4 or notification) near message	US-PGPUB; USPAT	OR	ON	2014/06/11 13:19
S109	1	S108 and establish$4 same pair$3 near devices	US-PGPUB; USPAT	OR	ON	2014/06/11 13:19
S110	18	S108 and internet near connection	US-PGPUB; USPAT	OR	ON	2014/06/11 13:21
S111	2	S108 and internet near connection same resources	US-PGPUB; USPAT	OR	ON	2014/06/11 13:21
S112	79	negotiat$3 near6 internet near connection	US-PGPUB; USPAT	OR	ON	2014/06/11 13:48
S113	0	negotiat$3 near6 internet near connection same pair$3 near device$1	US-PGPUB; USPAT	OR	ON	2014/06/11 13:48
S114	38	negotiat$3 near6 internet near connection same device$1	US-PGPUB; USPAT	OR	ON	2014/06/11 13:48
S115	1	negotiat$3 near6 internet near connection same (short near range or bluetooth)	US-PGPUB; USPAT	OR	ON	2014/06/11 13:49
S116	1	"14172913"	US-PGPUB; USPAT	OR	ON	2014/06/11 14:03
S117	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (short near range)).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/11 14:19

S118	3126	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection)	USPAT	OR	ON	2014/06/11 14:24
S119	175	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection) same (short near range or bluetooth)	USPAT	OR	ON	2014/06/11 14:24
S120	2	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection) same (short near range or bluetooth) with "100" near meter	USPAT	OR	ON	2014/06/11 14:25
S121	3	(pair$3 or ESTABLISH$3) same (user or device) same (internet near connection) same (short near range or bluetooth) with "100" near meter	US-PGPUB; USPAT	OR	ON	2014/06/11 14:25
S130	5673	g06f15/16.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:09
S131	471	S130 and (bluetooth or short near range)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:09
S132	5	S131 and ("100" near meter)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:10
S133	19	S131 and (pair$3 near6 devices)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:16
S134	0	S131 and (pair$3 near6 devices) same internet near access	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:17
S135	3	S133 and internet near access	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:17
S136	1	"14172913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/06/12 10:59
S137	3	"14109972"	US-PGPUB;	OR	OFF	2014/07/10

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:33
S138	5345	h04l65/403.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:33
S139	2	S138 and (assembl$3 or re$assembl$3) same (segment$3) same data near6 identifier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:33
S140	337	S138 and (bluetooth or blue-tooth)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:34
S141	4	S140 and (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/07/10 12:35
S142	0	"14171913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:39
S143	0	"14/171913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/07/10 12:39

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S88	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/01/03 16:32
S89	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/01/03 16:32
S90	0	(Singh or Klein or Laviano).in. and ((resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/01/03 16:32
S99	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/03/19 19:37

S100	0	"14109972"	USPAT; UPAD	OR	ON	2014/03/19 19:38
S101	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S102	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S103	0	(Singh or Klein or Laviano).in. and ((resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S104	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/04/14 14:01
S122	16352	(Singh or Klein or Laviano).in.	USPAT; UPAD	OR	ON	2014/06/11 14:18
S123	32	(Singh or Klein or Laviano).in. and (pair$3 or establish$3) same (user$1 or device$1) near6 (identif$4).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:20
S124	2	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4)).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:20
S125	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (resum$3 near6 transfer$3 near6 last near6 (packet$1 or data or segment))).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:21
S126	0	(Singh or Klein or Laviano).in. and (blue$tooth same (user or device) near6 (identif$4) same (internet near connectio)).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:22
S127	0	(Singh or Klein or Laviano).in. and (pair$3 or ESTABLISH$3) same (user or device) near6 (identif$4) same (internet near connectio).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:23
S128	0	(Singh or Klein or Laviano).in. and (pair$3 or ESTABLISH$3) same (user or device) same (internet near connectio).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:23
S129	3	(Singh or Klein or Laviano).in. and (pair$3 or ESTABLISH$3) same (user or device) same (internet near connection).clm.	USPAT; UPAD	OR	ON	2014/06/11 14:23

9/19/2014 8:08:34 PM
C:\Users\snooristany\Documents\EAST\Workspaces\13922219.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14297616	SINGH ET AL.
	Examiner	**Art Unit**
	SULAIMAN NOORISTANY	2478

CPC- SEARCHED		
Symbol	**Date**	**Examiner**
H04I63/403.cpc.	7/10/2014	SN

CPC COMBINATION SETS - SEARCHED		
Symbol	**Date**	**Examiner**

US CLASSIFICATION SEARCHED			
Class	**Subclass**	**Date**	**Examiner**

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
EAST update search	7/10/2014	SN
EAST update search	9/19/2014	SN

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
PgPub	see search history	9/19/2014	SN

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

ASHOK TANKHA
36 GREENLEIGH DRIVE
SEWELL, NJ 08080

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	06/05/2014	Gurvinder Singh	CellSpin_04Con8_US	7021

TITLE OF INVENTION: Automatic Multimedia Upload For Publishing Data And Multimedia Content

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	01/12/2015

EXAMINER	ART UNIT	CLASS-SUBCLASS
NOORISTANY, SULAIMAN	2415	709-202000

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 03-02 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 Ash Tankha
2 Lipton, Weinberger & Husick
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 has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: CellSpinSoft Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): San Jose, California, USA

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☑ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☑ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29 — 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.

☐ Applicant asserting small entity status. See 37 CFR 1.27 — 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.

☐ Applicant changing to regular undiscounted fee 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 /a tankha/ Date 16 October 2014

Typed or printed name Ashok Tankha Registration No. 33802

Electronic Patent Application Fee Transmittal

Application Number:	14297616
Filing Date:	05-Jun-2014
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Filer:	Ashok Tankha
Attorney Docket Number:	CellSpin_04Con8_US

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

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	480	480
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**480**

Electronic Acknowledgement Receipt	
EFS ID:	20429043
Application Number:	14297616
International Application Number:	
Confirmation Number:	7021
Title of Invention:	Automatic Multimedia Upload For Publishing Data And Multimedia Content
First Named Inventor/Applicant Name:	Gurvinder Singh
Correspondence Address:	ASHOK TANKHA - 36 GREENLEIGH DRIVE - SEWELL NJ 08080 US 856-266-5145 ash@ipprocurement.com
Filer:	Ashok Tankha
Filer Authorized By:	
Attorney Docket Number:	CellSpin_04Con8_US
Receipt Date:	16-OCT-2014
Filing Date:	05-JUN-2014
Time Stamp:	00:35:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$480

RAM confirmation Number	8845
Deposit Account	503291
Authorized User	TANKHA, ASHOK

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

Charge any Additional Fees required under 37 C.F.R. Section 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	Issue Fee Payment (PTO-85B)	CellSpin_04Con8_US_Issue_Fee_Form.pdf	178474 98c721bcc9a9795c8db967f9d1484fd51c2049ff	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30061 0b39649faece27b7384b09d2484ec5ef71cd6fe6	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	208535		

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.

<u>New Applications Under 35 U.S.C. 111</u>
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.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

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

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/297,616	11/25/2014	8898260	CellSpin_04Con8_US	7021

7590 11/05/2014

ASHOK TANKHA
36 GREENLEIGH DRIVE
SEWELL, NJ 08080

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 0 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).

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 Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Gurvinder Singh, Santa Clara, CA;
CellSpinSoft Inc., San Jose, CA, Assignee (with 37 CFR 1.172 Interest);
Marcos Klein, Mountain View, CA;
Vince Laviano, Alviso, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

IR103 (Rev. 10/09)

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071177

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	2

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT	07/27/2018

RECEIVING PARTY DATA

Name:	GURVINDER SINGH
Street Address:	151 BUCKINGHAM DRIVE, #299
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95051

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3
source=07-27-2018 Short-Form IP Security Agreement (G. Sing) (Supp 09-11-2007 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (G. Sing) (Supp 09-11-2007 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (G. Sing) (Supp 09-11-2007 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **GURVINDER SINGH**, a natural person residing at 151 Buckingham Drive, #299, Santa Clara, CA 95051 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of September 11, 2007, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

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Cellspin hereby grants to the Secured Party a security interest in and lien on all of Cellspin's right, title and interest in and to all patents, including without limitation, the patents set forth on **Exhibit 1**, attached hereto and incorporated herein by reference, patent rights (and applications and registrations therefor), trademarks and service marks (and applications and registrations therefor), inventions, copyrights, mask works (and applications and registrations therefor), trade names, trade styles, software and computer programs, source code, object code, trade secrets, methods, processes, know how, drawings, specifications, descriptions, and all memoranda, notes, and records with respect to any research and development, all whether now owned or subsequently acquired or developed by the Company and whether in tangible or intangible form or contained on magnetic media readable by machine together with all such magnetic media (but not including embedded computer programs and supporting information included within the definition of "goods" under Article 9 of the California Uniform Commercial Code) (collectively the "***IP Collateral***").

2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

GURVINDER SINGH

/s/ Gurvinder Singh /
Gurvinder Singh

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
4	8700790	Granted	15-Apr-14	USPTO Link
5	8738794	Granted	27-May-14	USPTO Link
6	8392591	Granted	5-Mar-13	USPTO Link
7	8762560	Granted	24-Jun-14	USPTO Link
8	8756336	Granted	17-Jun-14	USPTO Link
9	8862757	Granted	14-Oct-14	USPTO Link
10	8898260	Granted	25-Nov-14	USPTO Link
11	8798539	Granted	5-Aug-14	USPTO Link
12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071182

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT, INC.	01/25/2008

RECEIVING PARTY DATA

Name:	EAMONN MCSWEENERY
Street Address:	BALLINTUBER EAST, CARRIGTWOHILL
City:	COUNTY CORK
State/Country:	IRELAND
Postal Code:	TV45VH02

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (McSweeney) (Supp 01-25-2008 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (McSweeney) (Supp 01-25-2008 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (McSweeney) (Supp 01-25-2008 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **EAMONN MCSWEENEY**, a natural person residing at Ballintubber East, Carrigtwohill, County Cork, Ireland T45VH02 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of January 25, 2008, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

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2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

EAMONN MCSWEENEY

/s/ Eamonn McSweeney /
Eamonn McSweeney

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	US9226138	Granted	29-Dec-15	USPTO Link
2	US8892752	Granted	18-Nov-14	USPTO Link
3	US8904030	Granted	2-Dec-14	USPTO Link
4	US8700790	Granted	15-Apr-14	USPTO Link
5	US8738794	Granted	27-May-14	USPTO Link
6	US8392591	Granted	5-Mar-13	USPTO Link
7	US8762560	Granted	24-Jun-14	USPTO Link
8	US8756336	Granted	17-Jun-14	USPTO Link
9	US8862757	Granted	14-Oct-14	USPTO Link
10	US8898260	Granted	25-Nov-14	USPTO Link
11	US8798539	Granted	5-Aug-14	USPTO Link
12	US9258698	Granted	9-Feb-16	USPTO Link
13	US9749847	Granted	29-Aug-17	USPTO Link
14	US9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071256

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	3

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	RAJEEV VIRMANI
Street Address:	650 2ND STREET, APT. 2-3
City:	HOBOKEN
State/Country:	NEW JERSEY
Postal Code:	07030

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (R. Virmani) (Supp 05-10-2007 SA)#page1.tif

source=07-27-2018 Short-Form IP Security Agreement (R. Virmani) (Supp 05-10-2007 SA)#page2.tif

source=07-27-2018 Short-Form IP Security Agreement (R. Virmani) (Supp 05-10-2007 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **RAJEEV VIRMANI**, a natural person residing at 650 2nd Street, Apt. 2-D, Hoboken, NJ 07030 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of May 10, 2007, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

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IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

RAJEEV VIRMANI

/s/ Rajeev Virmani /
Rajeev Virmani

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
4	8700790	Granted	15-Apr-14	USPTO Link
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7	8762560	Granted	24-Jun-14	USPTO Link
8	8756336	Granted	17-Jun-14	USPTO Link
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12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071311

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	4

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	DAVID C LIN
Street Address:	2195 DENISE DRIVE
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95050

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
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Patent Number:	9749847
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Application Number:	15659637

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Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (D. Lin) (Supp 09-21-2007 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (D. Lin) (Supp 09-21-2007 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (D. Lin) (Supp 09-21-2007 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

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R E C I T A L S

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CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

DAVID C. LIN

/s/ David C. Lin /
David C. Lin

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
4	8700790	Granted	15-Apr-14	USPTO Link
5	8738794	Granted	27-May-14	USPTO Link
6	8392591	Granted	5-Mar-13	USPTO Link
7	8762560	Granted	24-Jun-14	USPTO Link
8	8756336	Granted	17-Jun-14	USPTO Link
9	8862757	Granted	14-Oct-14	USPTO Link
10	8898260	Granted	25-Nov-14	USPTO Link
11	8798539	Granted	5-Aug-14	USPTO Link
12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071391

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	5

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	RAM AKELLA
Street Address:	9640 CROSBY DRIVE
City:	PLEASANTON
State/Country:	CALIFORNIA
Postal Code:	94588

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (R. Akella) (Supp 10-23-2007 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (R. Akella) (Supp 10-23-2007 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (R. Akella) (Supp 10-23-2007 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **RAM AKELLA**, a natural person residing at 9640 Crosby Drive, Pleasanton, CA 94588 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of October 23, 2007, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

This IP Security Agreement is executed for the purpose of filing a short form security agreement in the United States Patent and Trademark Office (the "***USPTO***"), which sets forth Cellspin's pledge of its intellectual property as security for all of the Indebtedness Cellspin owes the Secured Party as set forth in the Security Agreement and all other related loan documents.

1. GRANT OF SECURITY INTEREST

Cellspin hereby grants to the Secured Party a security interest in and lien on all of Cellspin's right, title and interest in and to all patents, including without limitation, the patents set forth on **Exhibit 1**, attached hereto and incorporated herein by reference, patent rights (and applications and registrations therefor), trademarks and service marks (and applications and registrations therefor), inventions, copyrights, mask works (and applications and registrations therefor), trade names, trade styles, software and computer programs, source code, object code, trade secrets, methods, processes, know how, drawings, specifications, descriptions, and all memoranda, notes, and records with respect to any research and development, all whether now owned or subsequently acquired or developed by the Company and whether in tangible or intangible form or contained on magnetic media readable by machine together with all such magnetic media (but not including embedded computer programs and supporting information included within the definition of "goods" under Article 9 of the California Uniform Commercial Code) (collectively the "***IP Collateral***").

2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

RAM AKELLA

/s/ Ram Akella /
Ram Akella

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
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12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071443

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	6

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	DONALD A WILLIAMS
Street Address:	9715 ALCOSTA BLVD
City:	SAN RAMON
State/Country:	CALIFORNIA
Postal Code:	94583

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (D. Williams) (Supp 10-26-2007 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (D. Williams) (Supp 10-26-2007 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (D. Williams) (Supp 10-26-2007 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **DONALD A. WILLIAMS**, a natural person residing at 9174 Alcosta Blvd., Sam Ramon, CA 94583 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of October 26, 2007, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

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2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

DONALD A. WILLIAMS

/s/ Donald A. Williams /
Donald A. Williams

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
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12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071473

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	7

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	MARCOS KLEIN
Street Address:	1410 MERCY STREET
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94041

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (M. Klein) (Supp 06-20-2008 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (M. Klein) (Supp 06-20-2008 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (M. Klein) (Supp 06-20-2008 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **MARCOS KLEIN**, a natural person residing at 1410 Mercy Street, Mountain View, CA 94041 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of June 20, 2008, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

This IP Security Agreement is executed for the purpose of filing a short form security agreement in the United States Patent and Trademark Office (the "***USPTO***"), which sets forth Cellspin's pledge of its intellectual property as security for all of the Indebtedness Cellspin owes the Secured Party as set forth in the Security Agreement and all other related loan documents.

1. GRANT OF SECURITY INTEREST

Cellspin hereby grants to the Secured Party a security interest in and lien on all of Cellspin's right, title and interest in and to all patents, including without limitation, the patents set forth on **Exhibit 1**, attached hereto and incorporated herein by reference, patent rights (and applications and registrations therefor), trademarks and service marks (and applications and registrations therefor), inventions, copyrights, mask works (and applications and registrations therefor), trade names, trade styles, software and computer programs, source code, object code, trade secrets, methods, processes, know how, drawings, specifications, descriptions, and all memoranda, notes, and records with respect to any research and development, all whether now owned or subsequently acquired or developed by the Company and whether in tangible or intangible form or contained on magnetic media readable by machine together with all such magnetic media (but not including embedded computer programs and supporting information included within the definition of "goods" under Article 9 of the California Uniform Commercial Code) (collectively the "***IP Collateral***").

2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

MARCOS KLEIN

/s/ Marcos Klein /
Marcos Klein

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
4	8700790	Granted	15-Apr-14	USPTO Link
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12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071533

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	8

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	JAMES BLAND KESSINGER
Street Address:	1801 BRODERICK, #B
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94115

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

source=07-27-2018 Short-Form IP Security Agreement (J.B. Kessinger) (Supp 04-14-2008 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (J.B. Kessinger) (Supp 04-14-2008 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (J.B. Kessinger) (Supp 04-14-2008 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **JAMES BLAND KESSINGER**, a natural person residing at 1801 Broderick, #B, San Francisco, CA 94115 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of April 14, 2008, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

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IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

JAMES BLAND KESSINGER

/s/ James Bland Kessinger /
James Bland Kessinger

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
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13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071593

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	9

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	NEIL SILVERMAN
Street Address:	419 WYOMING CIRCLE
City:	GOLDEN
State/Country:	COLORADO
Postal Code:	80403

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
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Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

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Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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source=07-27-2018 Short-Form IP Security Agreement (N. Silverman) (Supp 01-11-2008 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (N. Silverman) (Supp 01-11-2008 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

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R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of January 11, 2008, by and between Cellspin and the Secured Party (the "***Security Agreement***").

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1. GRANT OF SECURITY INTEREST

Cellspin hereby grants to the Secured Party a security interest in and lien on all of Cellspin's right, title and interest in and to all patents, including without limitation, the patents set forth on **Exhibit 1**, attached hereto and incorporated herein by reference, patent rights (and applications and registrations therefor), trademarks and service marks (and applications and registrations therefor), inventions, copyrights, mask works (and applications and registrations therefor), trade names, trade styles, software and computer programs, source code, object code, trade secrets, methods, processes, know how, drawings, specifications, descriptions, and all memoranda, notes, and records with respect to any research and development, all whether now owned or subsequently acquired or developed by the Company and whether in tangible or intangible form or contained on magnetic media readable by machine together with all such magnetic media (but not including embedded computer programs and supporting information included within the definition of "goods" under Article 9 of the California Uniform Commercial Code) (collectively the "***IP Collateral***").

2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

NEIL SILVERMAN

/s/ Neil Silverman /
Neil Silverman

EXHIBIT 1

Automatic Multimedia Upload for Publishing Data and Multimedia Content				
	Patent Number	Issue Status	Issue Data	USPTO
1	9226138	Granted	29-Dec-15	USPTO Link
2	8892752	Granted	18-Nov-14	USPTO Link
3	8904030	Granted	2-Dec-14	USPTO Link
4	8700790	Granted	15-Apr-14	USPTO Link
5	8738794	Granted	27-May-14	USPTO Link
6	8392591	Granted	5-Mar-13	USPTO Link
7	8762560	Granted	24-Jun-14	USPTO Link
8	8756336	Granted	17-Jun-14	USPTO Link
9	8862757	Granted	14-Oct-14	USPTO Link
10	8898260	Granted	25-Nov-14	USPTO Link
11	8798539	Granted	5-Aug-14	USPTO Link
12	9258698	Granted	9-Feb-16	USPTO Link
13	9749847	Granted	29-Aug-17	USPTO Link
14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071627

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	10

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC.	07/27/2018

RECEIVING PARTY DATA

Name:	AMIR KHAN
Street Address:	C/O CELLSPIN SOFT INC.
Internal Address:	1410 MERCY STREET
City:	MOUNTAIN VIEW
State/Country:	CALIFORNIA
Postal Code:	94041

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
Patent Number:	8862757
Patent Number:	8898260
Patent Number:	8798539
Patent Number:	9258698
Patent Number:	9749847
Patent Number:	9900766
Application Number:	15659637

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.	
Phone:	4155162605
Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316
NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3
source=07-27-2018 Short-Form IP Security Agreement (A. Khan) (Supp 03-26-2007 SA)#page1.tif
source=07-27-2018 Short-Form IP Security Agreement (A. Khan) (Supp 03-26-2007 SA)#page2.tif
source=07-27-2018 Short-Form IP Security Agreement (A. Khan) (Supp 03-26-2007 SA)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 27th day of July 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 ("***Cellspin***") and **AMIR KHAN** (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of March 26, 2007, by and between Cellspin and the Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

This IP Security Agreement is executed for the purpose of filing a short form security agreement in the United States Patent and Trademark Office (the "***USPTO***"), which sets forth Cellspin's pledge of its intellectual property as security for all of the Indebtedness Cellspin owes the Secured Party as set forth in the Security Agreement and all other related loan documents.

1. GRANT OF SECURITY INTEREST

Cellspin hereby grants to the Secured Party a security interest in and lien on all of Cellspin's right, title and interest in and to all patents, including without limitation, the patents set forth on **Exhibit 1**, attached hereto and incorporated herein by reference, patent rights (and applications and registrations therefor), trademarks and service marks (and applications and registrations therefor), inventions, copyrights, mask works (and applications and registrations therefor), trade names, trade styles, software and computer programs, source code, object code, trade secrets, methods, processes, know how, drawings, specifications, descriptions, and all memoranda, notes, and records with respect to any research and development, all whether now owned or subsequently acquired or developed by the Company and whether in tangible or intangible form or contained on magnetic media readable by machine together with all such magnetic media (but not including embedded computer programs and supporting information included within the definition of "goods" under Article 9 of the California Uniform Commercial Code) (collectively the "***IP Collateral***").

2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this IP Security Agreement to be duly executed as of the day and year first above written.

CELLSPIN SOFT, INC.

/s/ Gurvinder Singh /
Gurvinder Singh
President

THE SECURED PARTY:

AMIR KHAN

/s/ Amir Khan /
Amir Khan

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14	9900766	Granted	20-Feb-18	USPTO Link
15	15659637	Application : Pending		

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5071658

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
CELLSPIN SOFT INC	07/24/2018

RECEIVING PARTY DATA

Name:	JOHN W KASTELIC
Street Address:	715 FLAT SHOALS AVE SE
City:	ATLANTA
State/Country:	GEORGIA
Postal Code:	30316

PROPERTY NUMBERS Total: 15

Property Type	Number
Patent Number:	9226138
Patent Number:	8892752
Patent Number:	8904030
Patent Number:	8700790
Patent Number:	8738794
Patent Number:	8392591
Patent Number:	8762560
Patent Number:	8756336
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CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 4155162605

Email:	johnwkastelic@gmail.com
Correspondent Name:	JOHN W KASTELIC
Address Line 1:	715 FLAT SHOALS AVE SE
Address Line 4:	ATLANTA, GEORGIA 30316

NAME OF SUBMITTER:	JOHN W KASTELIC
SIGNATURE:	/John W Kastelic/
DATE SIGNED:	07/27/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3
source=07-24-2018 Short Form IP Security Agreement (J. Kastelic)#page1.tif
source=07-24-2018 Short Form IP Security Agreement (J. Kastelic)#page2.tif
source=07-24-2018 Short Form IP Security Agreement (J. Kastelic)#page3.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

(Cellspin Soft, Inc.)

This Intellectual Property Security Agreement, is entered into this 24th day of July, 2018 (the "***IP Security Agreement***") by and between **CELLSPIN SOFT, INC.**, a California corporation with a place of business at 1410 Mercy Street, Mountain View, CA 94041 (the "***Cellspin***") and **JOHN W. KASTELIC**, a natural person residing at 715 Flat Shoals Ave., SE, Atlanta, GA 30316 (the "***Secured Party***").

R E C I T A L S

This IP Security Agreement is a supplement to that certain Security Agreement, dated as of the date herein, by and between Cellspin and Secured Party (the "***Security Agreement***").

All capitalized terms not defined herein shall have the definitions ascribed to them in the Security Agreement, and are incorporated herein by reference. If there is a conflict between the definitions, terms or provisions of this IP Security Agreement and the Security Agreement, the definitions, terms or provisions of the Security Agreement shall control.

This IP Security Agreement is executed for the purpose of filing a short form security agreement in the United States Patent and Trademark Office (the "***USPTO***") and the US Copyright Office, which sets forth Cellspin's pledge of its intellectual property as security for the Indebtedness Cellspin owes the Secured Party as set forth in the Security Agreement and all other related loan documents.

1. **GRANT OF SECURITY INTEREST**

Cellspin hereby grants to the Secured Party a security interest in and lien on all of the intellectual property assets owned by Cellspin, including without limitation all patents and patent rights, including all provisional and non-provisional applications, issued patents including those based on continuation, continuation-in-part, divisional and substitute applications, patents resulting from a reissue or reexamination proceeding, and any foreign equivalents and improvements thereof, trademarks, service marks (and applications and registrations therefor) and copyrights set forth in **Exhibit 1**, attached hereto and incorporated herein by reference, inventions, mask works (and applications and registrations therefor), trade names, trade styles, software and computer programs, trade secrets, methods, processes, know how, drawings, specifications, descriptions, and all memoranda, notes, and records with respect to any research and development, and whether in tangible or intangible form or contained on magnetic media readable by machine together with all such magnetic media (but not including embedded computer programs and supporting information included within the definition of "goods" under Article 9 of the California Uniform Commercial Code), wherever located and whether now owned or hereafter acquired or developed by Cellspin, all source and object code associated with such intellectual property, all goodwill of the business of Cellspin connected with the use of, or otherwise symbolized by, such intellectual property, all rights to sue for infringement of such intellectual property including claims for past and future infringements, and all parts, replacements, substitutions, profits,

products, amendments, updates and cash and non-cash proceeds of any of the foregoing (including insurance proceeds, of any kind, including those payable by reason of loss or damage thereto) in any form and wherever located, and all written or electronically recorded books and records relating to any such assets and other rights relating thereto, wherever located and whether now owned or hereafter acquired (collectively the "***IP Collateral***").

2. REPRESENTATIONS, WARRANTIES, COVENANTS AND MISCELLANEOUS

All other terms, conditions, agreements, obligations, representations, warranties, covenants, definitions, exhibits and miscellaneous terms, conditions, agreements and obligations set forth in the Security Agreement are restated and incorporated herein by reference.

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CELLSPIN SOFT, INC.

/s/ Gurvinder Singh
Gurvinder Singh
President

THE SECURED PARTY:

JOHN W. KASTELIC

/s/ John W. Kastelic
John W. Kastelic

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