

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner

v.

MOTION OFFENSE, LLC,  
Patent Owner

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Patent No. 11,044,215

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**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 11,044,215**

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## LIST OF EXHIBITS

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| EX1001 | U.S. Patent No. 11,044,215                                                                                                                                              |
| EX1002 | Declaration of Dr. Henry Houh                                                                                                                                           |
| EX1003 | Curriculum Vitae of Dr. Henry Houh                                                                                                                                      |
| EX1004 | Prosecution History of U.S. Patent No. 11,044,215                                                                                                                       |
| EX1005 | U.S. Patent No. 8,825,597 (“Houston”)                                                                                                                                   |
| EX1006 | U.S. Patent No. 9,633,125 (“Garcia”)                                                                                                                                    |
| EX1007 | Botto, Dictionary of e-Business (2nd ed. 2003) (excerpts)                                                                                                               |
| EX1008 | Collin, Dictionary of Computing (4th ed. 2002) (excerpts)                                                                                                               |
| EX1009 | U.S. Patent Application Publication No. 2007/0011246 (“Wu”)                                                                                                             |
| EX1010 | Katherine Kelly Vidal, Memorandum re: Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (June 21, 2022) |
| EX1011 | Scheduling Order, <i>Motion Offense, LLC v. Google LLC</i> , No. 6:21-cv-514-ADA, Dkt. 71 (W.D. Tex. July 11, 2022)                                                     |
| EX1012 | Defendant Google LLC’s Opposed Motion to Transfer, <i>Motion Offense, LLC v. Google LLC</i> , No. 6:21-cv-514-ADA, Dkt. 34 (W.D. Tex. Dec. 30, 2021)                    |
| EX1013 | Judge Allan D. Albright’s Standing Order Governing Proceedings (OGP) 4.1–Patent Cases (W.D. Tex. April 14, 2022)                                                        |
| EX1014 | Joint Proposed Scheduling Order, <i>Motion Offense, LLC v. Google LLC</i> , No. 6:21-cv-514-ADA, Dkt. 33 (W.D. Tex. Nov. 4, 2021)                                       |
| EX1015 | Order Setting Markman Hearing, <i>Motion Offense, LLC v. Google LLC</i> , No. 6:21-cv-514-ADA, Dkt. 47 (W.D. Tex. Mar. 18, 2022)                                        |
| EX1016 | Order Resetting Markman Hearing, <i>Motion Offense, LLC v. Google LLC</i> , No. 6:21-cv-514-ADA, Dkt. 62 (W.D. Tex. May 25, 2022)                                       |
| EX1017 | Lex Machina, 3,654 Federal District Court Cases for Alan D.                                                                                                             |

|        |                                       |
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|        | Albright (July 24, 2022)              |
| EX1018 | RPX, Q1 in Review (Apr. 2022)         |
| EX1019 | Judicial Caseload Profile (Mar. 2022) |

## I. INTRODUCTION

Google LLC (“Petitioner”) requests *inter partes* review (“IPR”) of claims 1, 13-15, 19, 20, 50, and 51 (“the challenged claims”) of U.S. Patent No. 11,044,215 (“the ’215 patent”) (EX1001), which is purportedly assigned to Motion Offense, LLC (“PO”). For the reasons below, the challenged claims should be found unpatentable and canceled.

## II. MANDATORY NOTICES

**Real Parties-in-Interest:** Pursuant to 37 C.F.R. § 42.8(b)(1), Petitioner identifies the following as the real parties-in-interest: Google LLC.<sup>1</sup>

**Related Matters:** The ’215 patent is at issue in the following civil actions: *Motion Offense, LLC v. Google LLC*, Case No. 6:21-cv-00514-ADA (W.D. Tex.); *Motion Offense, LLC v. Dropbox, Inc.*, Case No. 6:21-cv-00758 (W.D. Tex.).

The ’215 patent originated from U.S. Patent Application No. 16/803,980 (“the ’980 application”), filed on February 27, 2020, and claims priority to U.S. Patent Application No. 13/624,906 (“the ’906 application”), filed on September 22, 2012. (EX1001, Cover.)

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<sup>1</sup> Google LLC is a subsidiary of XXVI Holdings Inc., which is a subsidiary of Alphabet Inc. XXVI Holdings Inc. and Alphabet Inc. are not real parties-in-interest to this proceeding.

The '215 patent is related to U.S. Patent Nos. 10,303,353 (“the '353 patent”) and 10,613,737 (“the '737 patent”), which are at issue in *Dropbox, Inc. v. Motion Offense, LLC*, Case No. 6:20-cv-00251-ADA (W.D. Tex.) and *Motion Offense, LLC v. Google LLC*, Case No. 6:21-cv-00514-ADA (W.D. Tex.). Petitioner is concurrently filing IPR petitions challenging the '353 and '737 patents.

**Counsel and Service Information:** Lead counsel: Naveen Modi (Reg. No. 46,224). Backup counsel: (1) Joseph E. Palys (Reg. No. 46,508), and (2) Phillip Citroën (Reg. No. 66,541).

Service information is Paul Hastings LLP, 2050 M Street NW, Washington, DC 20036, Tel.: 202.551.1700, Fax: 202.551.1705, Email: PH-Google-MotionOffense-IPR@paulhastings.com. Petitioner consents to electronic service.

### **III. PAYMENT OF FEES**

The PTO is authorized to charge any fees due during this proceeding to Deposit Account No. 50-2613.

### **IV. GROUNDS FOR STANDING**

Petitioner certifies that the '215 patent is available for review, and Petitioner is not barred/estopped from requesting review on the grounds herein.

## **V. PRECISE RELIEF REQUESTED**

### **A. Claims for Which Review Is Requested**

Petitioner requests review of claims 1, 13-15, 19, 20, 50, and 51 (“the challenged claims”) of the ’215 patent and cancellation of those claims as unpatentable.

### **B. Statutory Grounds of Challenge**

The challenged claims should be canceled as unpatentable in view of the following grounds:

**Ground 1:** Claims 1, 13-15, 19, 20, 50, and 51 are unpatentable as obvious under 35 U.S.C. § 103 (pre-AIA) over U.S. Patent No. 8,825,597 (“Houston”) (EX1005) in view of U.S. Patent No. 9,633,125 (“Garcia”) (EX1006) and U.S. Patent Application Publication No. 2007/0011246 (“Wu”) (EX1009).

For purposes of this proceeding only, Petitioner assumes the earliest effective filing date of the ’215 patent is September 22, 2012, which is the filing date of the ’906 application, to which the ’215 patent claims priority.

Houston issued from an application filed August 13, 2010. Garcia issued from an application filed August 10, 2012. Therefore, Houston and Garcia each qualify as prior art at least under 35 U.S.C. § 102(e)(2) (pre-AIA). Wu was published on January 11, 2007, and is therefore prior art under 35 U.S.C. § 102(b) (pre-AIA).

## **VI. LEVEL OF ORDINARY SKILL**

A person of ordinary skill in the art as of the claimed priority date of the '215 patent ("POSITA") would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a related field, or an equivalent technical degree or equivalent work experience, and at least two years of experience in the field of software development.<sup>2</sup> More education can supplement practical experience and vice versa. (EX1002 ¶¶19-20.)

## **VII. OVERVIEW OF THE '215 PATENT**

The '215 patent relates to "processing a data object identification request in a communication." (EX1001, Title; EX1002 ¶¶21-29.) The processing includes providing a message "that does not include a file attachment." (EX1001, Abstract.) Instead, the message includes a "reference" to the file. (*Id.*) The "reference...allow[s] access...to the at least one file." (*Id.*, 3:9-13.) The message may also identify "a contactee," which may be "represented by a communications address in an address space." (*Id.*, 24:58-61.)

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<sup>2</sup> Petitioner submits the declaration of Dr. Henry Houh (EX1002), an expert in the field of the '215 patent. (EX1002 ¶¶1-20, 207-208; EX1003.)

## VIII. CLAIM CONSTRUCTION

Under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), claim terms are typically given their ordinary and customary meanings as understood by a POSITA at the time of the invention based on the claim language, specification, and the prosecution history. *Phillips*, 415 F.3d at 1313; *see also id.*, at 1312-16. The Board, however, only construes the claims when necessary to resolve the controversy. *Toyota Motor Corp. v. Cellport Sys., Inc.*, IPR2015-00633, Paper No. 11 at 16 (Aug. 14, 2015) (citation omitted). No express constructions of any claim terms are necessary to resolve this Petition. (EX1002 ¶30.)<sup>3</sup>

## IX. DETAILED EXPLANATION OF GROUNDS

### A. Ground 1: The combination of Houston, Garcia, and Wu Renders Obvious Claims 1, 13-15, 19, 20, 50, and 51.

#### 1. Summary of Combination and Obviousness Rationale

Houston teaches or suggests all but a few features recited in the challenged claims. As explained below, Garcia and Wu teach the features that are not explicitly

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<sup>3</sup> Petitioner reserves all rights to raise claim construction and other arguments, including challenges under 35 U.S.C. §§ 101 or 112, in district court as relevant to those proceedings. *See, e.g., Target Corp. v. Proxicom Wireless, LLC*, IPR2020-00904, Paper 11 at 11-13 (Nov. 10, 2020).

disclosed in Houston. It would have been obvious to a POSITA to modify Houston to incorporate these features of Garcia and Wu.

For example, Houston does not explicitly disclose “receipt of at least one email” or the characteristics of the at least one email (*i.e.*, claim elements 1.g-k and 51.h-l), as recited in claims 1 and 51.<sup>4</sup> Houston also does not explicitly disclose (i) “based on a detection of an indication that the HTTP link of the at least one email has been selected, causing, at the second node, sending, to at least one server, of a signal for causing creation of a first representation of the at least one folder, in a location among one or more folders, that is stored at the at least one server and that is displayable via at least one web page,” (ii) “cause creation of a second representation of the at least one folder, in a location among one or more folders, that is stored at the second node and that is displayable via the file explorer interface of the client-based file explorer application, where first metadata corresponding to the least one folder that is stored at the at least one server is synchronized, utilizing the code, with second metadata corresponding to the at least one folder that is stored at the second node,” or (iii) “cause display, via the file explorer interface of the client-based file explorer application, of the second representation of the at least one folder that is stored at the second node,” as recited in claims 1 and 51. Nor does

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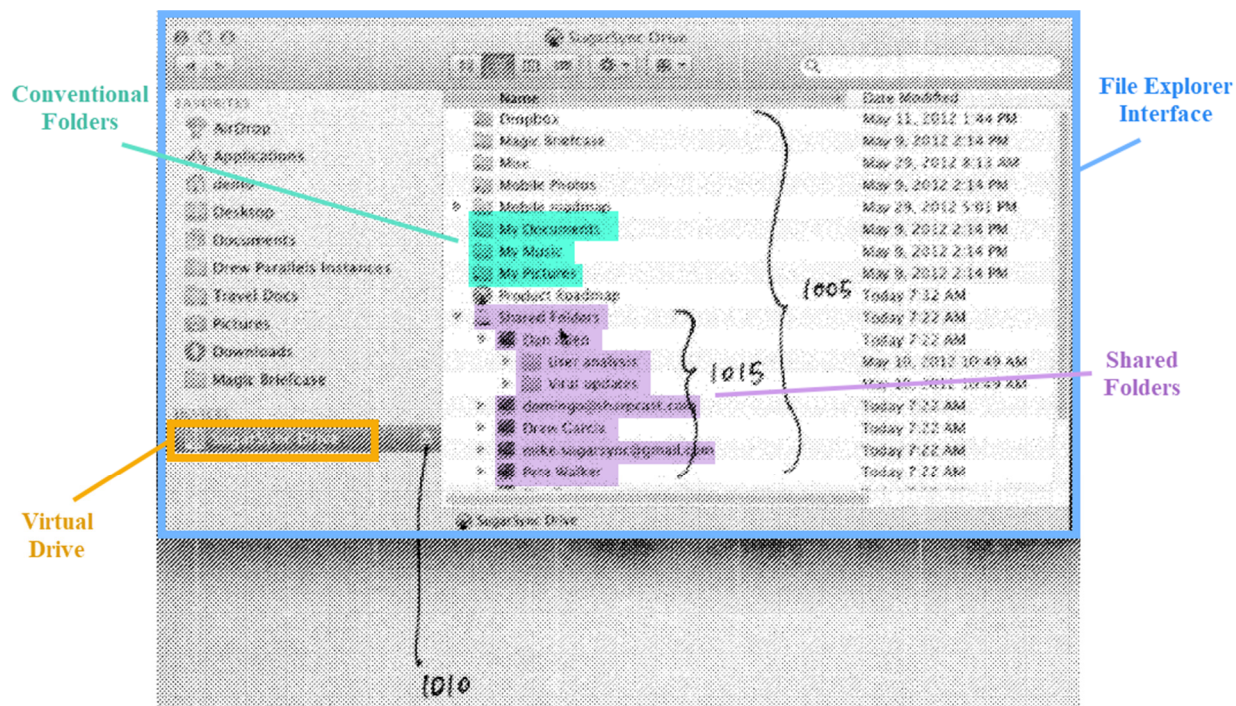
<sup>4</sup> For ease of reference, claim language is underlined in the instant petition.

Houston explicitly disclose “the second representation of the at least one folder is caused to be created automatically, in response to on the detection of the indication that the HTTP link of the at least one email has been selected,” as recited in claim 50. These features, however, would have been obvious to a POSITA based on the combined teachings of Houston and Garcia. (EX1002 ¶¶48-70.)

Additionally, to the extent PO argues that Houston does not disclose “causing, at the second node, receipt of the at least one web page, that results in display, at the second node and via the at least one web page, the first representation of the at least one folder that is stored at the at least one server” and “causing, at the second node, receipt of code for storage at the second node and cooperation with a file explorer interface of a client-based file explorer application, for being utilized to,” as recited in claims 1 and 51, or “the access to the first contents is capable of being configured to be read-only,” as recited in claim 14 (and similarly recited in claim 15), these features would have also been obvious based on the combined teachings of Houston and Garcia. (*Id.*)

For example, as shown in Figures 10 and 20a below, Garcia discloses the use of a “virtual drive” that allows folders that are stored remotely to be viewed and accessed using a file system representation provided to the user’s local client device (“causing, at the second node, receipt of code for storage at the second node and cooperation with a file explorer interface of a client-based file explorer application”).

(EX1006, 2:37-41 (“A user may be able to access, via the user interface, a virtual drive on the local device, where, via the virtual drive, a user is able to access items (e.g., files) in any object (e.g., folders), including objects located only on a remote device”), 4:53-5:3; EX1002 ¶52.) Garcia further discloses that a representation of a folder may be created and viewed by a user (“cause creation of a second representation of the at least one folder, in a location among one or more folders, that is stored at the second node and that is displayable via the file explorer interface of the client-based file explorer application”). (EX1006, 2:66-3:3, 4:58-64 (“The virtual drive provides a file system representation, on the user’s local client device, of all objects, across a plurality of clients including the local client, which a user has synchronized or otherwise saved to the synchronization system.”), 5:4-13, 5:27-35, 6:5-27, 7:11-33, 10:52-11:10, claim 4; EX1002 ¶52.)



(*Id.*, FIG. 10 (annotated).)

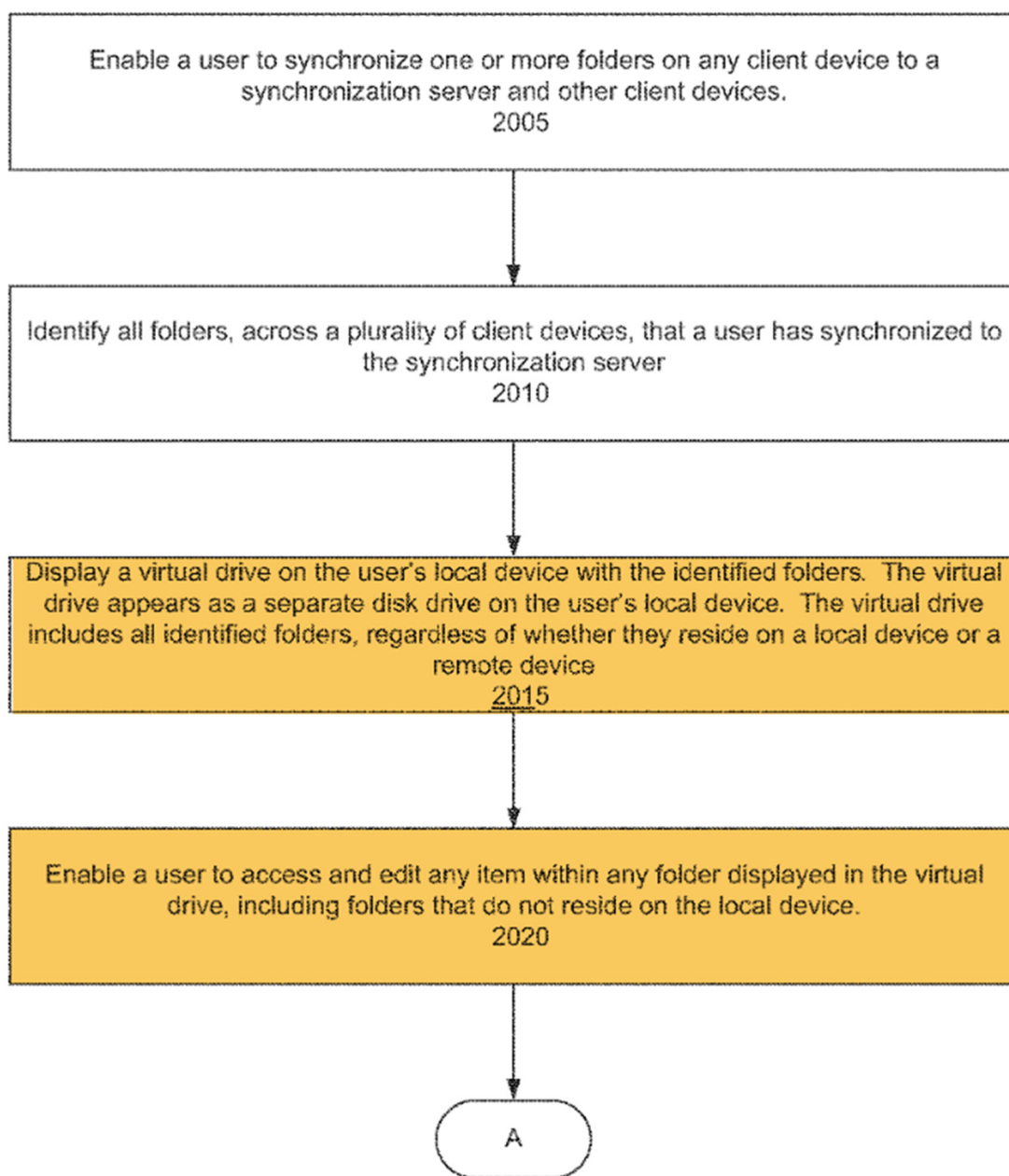


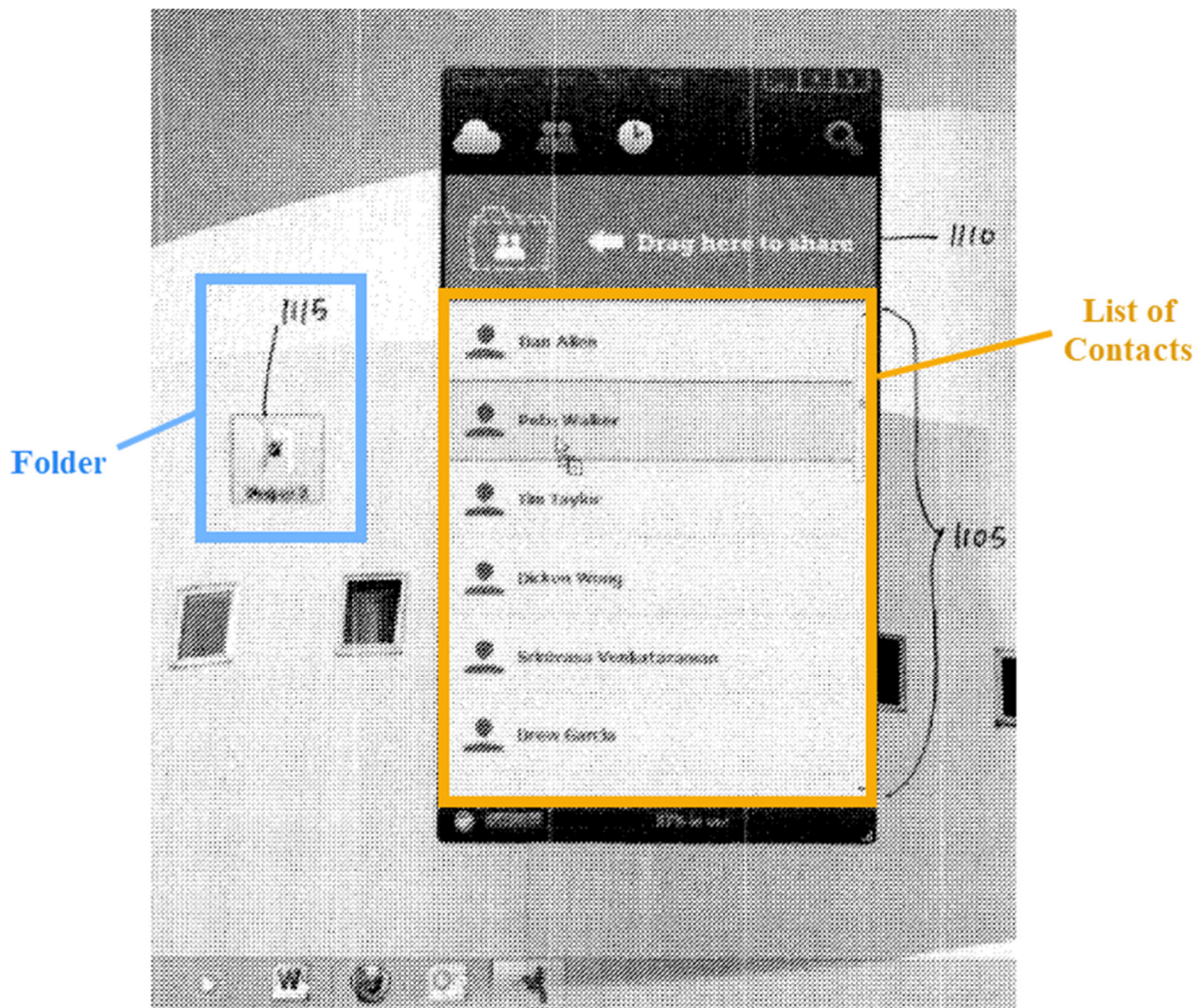
FIG. 20a

(*Id.*, FIG. 20a (annotated).)

Garcia further discloses a user with whom a folder is shared receiving an email (“causing, at a second node, receipt of at least one email”) including a web link (“an HyperText Transfer Protocol (HTTP) link”) in order to share the virtual folder without sending the folder itself (“does not include a file attachment”). (EX1006, 2:35-37, 4:51-53, 10:32-40, 11:17-19 (“[W]hen a user drags a folder to a particular contact, the folder or a link to the folder 1115 is automatically sent (via email, text, or other means) to the contact.”), 11:24-31, 11:39-43, claim 3; EX1002 ¶53.) Such web links were widely known to be executed via HyperText Transport Protocol. (EX1002 ¶54; EX1007, 347 (defining “web” as a “global hypertext-based structure that can be navigated and browsed”), 357 (defining “World Wide Web” as “a global hypertext-based structure that can be navigated and browsed,” and explaining that its “underlying code or glue is HTML”); EX1008, 381 (defining “web or www or world wide web” as a “collection of the millions of websites and web pages that together form the part of the Internet that is most often seen by users,” where “[e]ach page is created using the HTML language”).) The web link identifies the shared folders and files. (EX1006, 10:32-40 (“The Web link tab 335 includes a list of folders or files that have been shared as a link with other users...and an icon 915[] places the link onto the clipboard to be copied into an email, text, or other transmittal.”), 31:64-32:7, claim 1.) Therefore, Garcia’s disclosure of emails

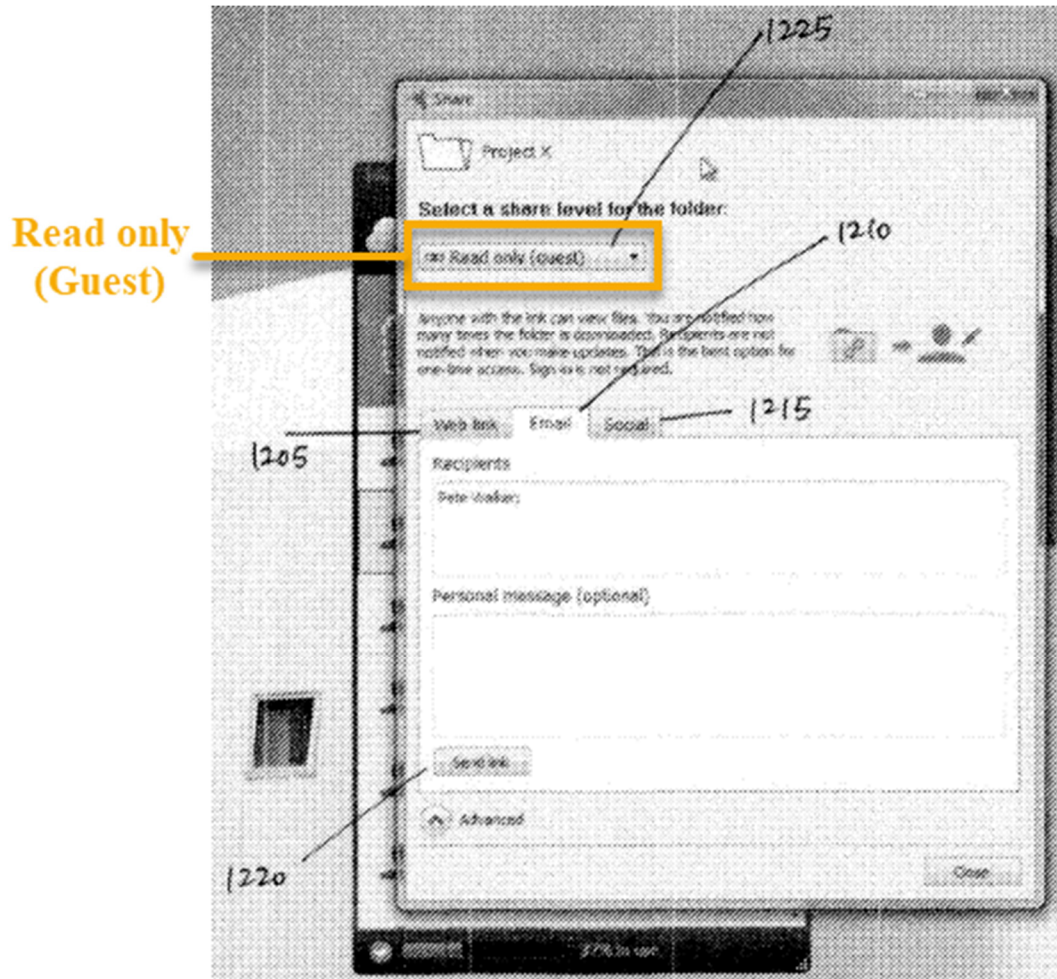
containing web links to shared folders also disclose an email that “identifies the information associated with the at least one folder.” (EX1002 ¶¶54-55.)

For example, as shown in Figure 11 below, Garcia discloses enabling a user to drag a folder 1115 to a particular contact 1105, which automatically shares the folder 1115 via email. (EX1006, 11:11-26.)



(*Id.*, FIG. 11 (annotated).)

Garcia discloses enabling a user to change the sharing level of a folder recipient to “Read only (Guest)” (“the access to the first contents is capable of being configured to be read-only”). (*Id.*, FIG. 12; *id.*, 6:31-35, 11:31-33; EX1002 ¶56.)

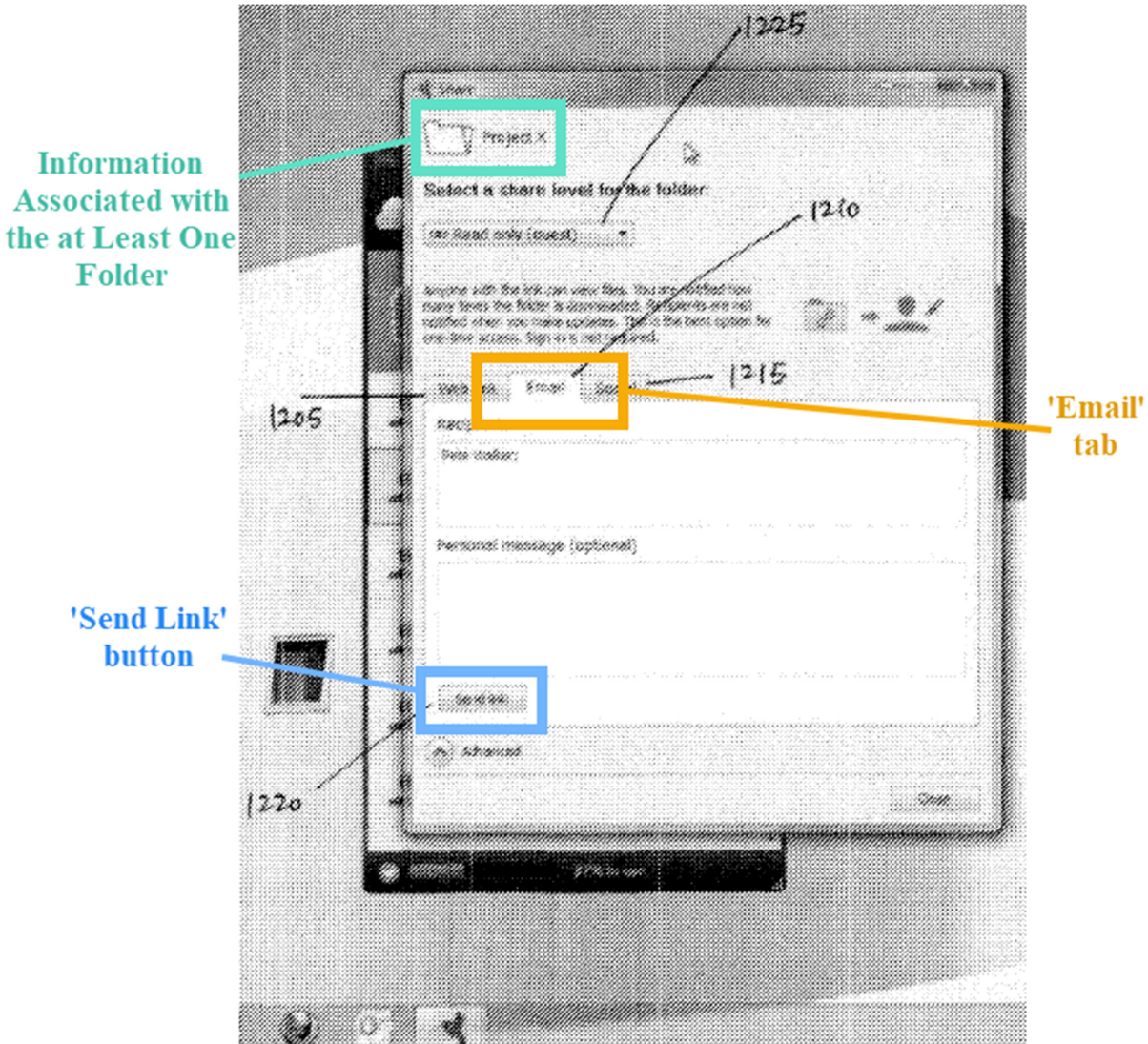


(EX1006, FIG. 12 (annotated).)

As further illustrated by Figure 12 below, Garcia discloses that, after a user drags a folder 1115 to a particular contact, a dialog box may be presented providing an option for the user to share a link to the folder via an email 1210 by clicking on a send link button 1220. (*Id.*, 11:11-29, 11:35-43.) The user receiving the email may

then access the contents of the folder by clicking on the link in the received email.

(*Id.*, 11:29-31.)



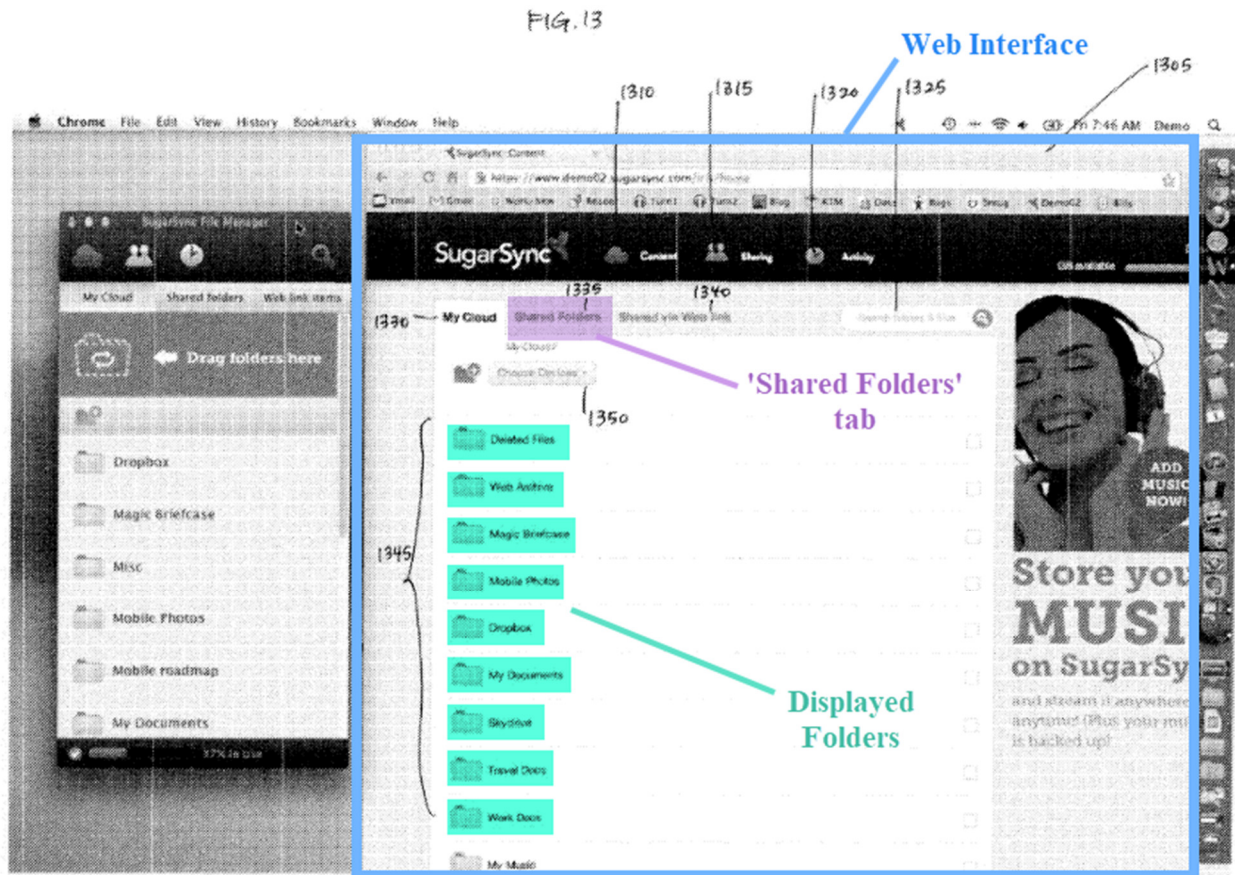
(*Id.*, FIG. 12 (annotated).)

As part of its method for sharing a folder via email, Garcia discloses no intervening actions that are required from either the user who sends or the user who receives an invitation to share a folder in order for the user with whom the folder is shared to receive the email sharing the folder. (*Id.*, 2:35-41, 3:58-61, 4:51-57, 10:32-

43, 11:17-19, 11:27-31 (“When the user clicks on the send link button 1220, a link to folder 1115 is sent to the contact. When the contact clicks on the link to folder 1115, the contents of the folder are shared with the contact.”), 11:39-43.); EX1002 ¶58.) Thus, Garcia discloses that an email sent to share a folder “is automatically caused to be received without requiring user involvement after the detection of the indication of the selection of the third user interface element to cause the initiation of the sharing of the at least one folder.” (EX1002 ¶¶57-58.)

After the email is received, Garcia discloses that the user with whom the folder is shared (“the second node”) may then click on the link in the received email (“detection of an indication that the HTTP link of the at least one email has been selected”), and the contents of the remotely-stored folder become accessible to the user through the virtual drive (“causing...sending, to at least one server, of a signal for causing creation of a first representation of the at least one folder, in a location among one or more folders, that is stored at the at least one server” and “the second representation of the at least one folder is caused to be created automatically, in response to on the detection of the indication that the HTTP link of the at least one email has been selected”). (EX1006, 4:60-67, 5:20-26, 11:29-31 (“When the contact clicks on the link to folder 1115, the contents of the folder are shared with the contact.”); EX1002 ¶59.)

Garcia further discloses a web interface, accessible by the user with whom the folder is shared (“causing, at the second node, receipt of the at least one web page”), and including a “Shared Folders tab” that displays (“displayable via at least one web page”) shared folders (“a first representation of the at least one folder, in a location among one or more folders, that is stored at the at least one server” and “display, at the second node and via the at least one web page, the first representation”), as shown in Figure 13 below. (EX1006, 11:44-53; *id.*, 9:7-9; EX1002 ¶60.)



(EX1006, FIG. 13 (annotated).)

According to Garcia, using either a web interface or a client-based file explorer application interface, as illustrated above in Figures 10, 13, and 20a, a user may access a file stored on the virtual drive (causing, at the second node, receipt of code for storage at the second node and cooperation with a file explorer interface of a client-based file explorer application, for being utilized to). (*Id.*, 2:37-41, 2:66-3:3, 4:53-62, 5:4-13, 5:27-43, 6:5-27, 10:52-11:10, claim 4; EX1002 ¶¶61-62.) For example, Garcia explains that “a user double clicks on a file or item in a remote folder in the virtual drive, the server downloads its copy of the file/item to the local synchronization software client.” (EX1006, 5:32-43; *id.*, FIG. 20a, 2:19-22, 2:37-41, 2:66-3:3, 4:53-57, 5:4-13, 6:5-27, 10:52-11:10, claim 4.) Garcia also describes the use of “metadata” corresponding to synchronized folder. (*Id.*, 5:14-26.)

It would have been obvious to modify Houston to incorporate the above-discussed features taught by Garcia. (EX1002 ¶¶63-68.) First, a POSITA would have been encouraged to look to Garcia when implementing Houston’s system of sharing folders and files, and keeping them synchronized across multiple users, because Houston and Garcia disclose features in a common technical field and address similar problems. (*Id.* ¶¶63.) For example, both Houston and Garcia relate to sharing across client devices over a network of folders and files, and maintaining synchronization thereof. (EX1005, Abstract; EX1006, Abstract.)

Second, a POSITA would have had good reason, and found it predictable, to modify Houston's system to incorporate such features, based on Garcia's teachings. (EX1002 ¶¶64-67.) For example, a POSITA would have had good reason to modify Houston's system such that (i) an invitation involves sending an email to identified recipients identifying and referencing (*e.g.*, a link) any shared folders, (ii) shared folders and files are stored virtually instead of locally and represented for display among other folders and files via a web interface or within a client's file explorer interface, (iii) selecting the link causes the display of the shared folder in a web page, and (iv) selecting a shared file causes the retrieval of the at least one file via a network for display, because the inclusion of such features would have had the benefit of "enabling greater control and file management by the user" by allowing the user to "easily synchronize, manage, and share folders across a plurality of client devices." (EX1006, 1:27-35; EX1002 ¶¶64.)

As Garcia explains, "sending links to folders or files to other users[] allows other users to access the folders or files without requiring the other user to create an account in the synchronization system." (EX1006, 10:40-43.) Moreover, a POSITA would have understood that, with this modification, there would be no need to email folders or files or locally store such folders or files, which may be large. (*Id.*, 10:59-11:10 (discussing accessing folders that reside on a virtual drive of a device remote from the local device); EX1002 ¶¶65.) Instead, as Garcia teaches, the folders and files

would be stored virtually on a server accessible over a network via a web- and/or client-based interface but displayed alongside other folders and files, for selection and retrieval on demand, simplifying folder and file synchronization across devices and conserving valuable client resources. (EX1002 ¶65.) As described in Houston (Section IX.A.2.o) and Garcia, metadata could beneficially be used for synchronization of information corresponding to shared folders, so that users are kept updated with accurate information. (EX1002 ¶65.) And, as described in Garcia, security can be maintained to protect sensitive information by designating shared folders as read only. (*Id.*)

A POSITA would have recognized that, by storing folders and files virtually on a server, a user may have access to the server's greater storage capacity compared to the limited storage capacity of the user's client, improving the user's ability to share and access larger volumes of folders and files from any location. (*Id.* ¶66.) Thus, a POSITA would have recognized the obvious and predictable benefits of the combined system, and that such a system would have better overcome the problems identified in Houston, including that "attaching files [is] cumbersome for many computer users" and, "where multiple iterations are involved, it is not difficult to end up with multiple versions of the same document, perhaps having the same or a similar file name, located in various places on a user's hard drive." (EX1005, 1:41-45; EX1002 ¶66.)

Thus, a POSITA would have had good reason to combine the teachings of Houston and Garcia to arrive at the alleged invention recited in the challenged claims, as such a combination would have been nothing more than the combination and substitution of known elements (*e.g.*, Houston's synchronization system modified to incorporate the above-discussed features of Garcia's virtual drive synchronization system) to yield predictable results (*e.g.*, folder and file synchronization utilizing email invitations with links to virtual folders, which can be viewed and accessed on demand, as if stored locally, and through a variety of interfaces). (EX1002 ¶67.)

Third, a POSITA would have had a reasonable expectation of success in combining the teachings of Houston and Garcia in the way discussed above, because such a modification would have merely involved modifying Houston's system using well-known computer programming principles to implement Garcia's teachings. (*Id.*) Indeed, Houston already teaches a system for sharing and synchronizing a folder with a user identified by an email address and viewing and accessing such a folder using web- and/or device-based software, so programming the system to incorporate the above-discussed features taught by Garcia, such as sending an email including a link to a shared and synchronized virtual folder that can be viewed and accessed on demand using web- and/or device-based software, would have been a straightforward extension of Houston's teachings. (*Id.*)

Additionally, neither Houston nor Garcia explicitly disclose sending an email that “is at least partially pre-written,” as recited in claims 1 and 51. This feature, however, would have been obvious in further view of Wu, which describes producing emails using “predetermined subject templates” and “predetermined content templates” stored in databases. (EX1009, [0018]; *id.*, [0021]; EX1002 ¶¶69-70.)

Based on Wu’s teachings, it would have been obvious to a POSITA to modify the Houston-Garcia combination such that the email is produced using predetermined templates, similar to as described in Wu. (EX1002 ¶70.) A POSITA would have recognized, based on Wu, that utilizing such templates would have beneficially resulted in “producing an E-mail quickly to reduce the time and episodes of entering the related information of an E-mail.” (EX1009, [0006]; EX1002 ¶70.) According to Wu, such templates would have been particularly advantageous in situations where the “content of an email may be used repeatedly,” as “it is a waste of time to enter repeatedly the same information.” (EX1009, [0005].) As Houston suggests, such a situation could have occurred with respect to the Houston-Garcia system, where “any number of clients 108 may be sharing synchronized folders via host system 110.” (EX1005, 3:22-24; EX1002 ¶70.) Thus, a POSITA would have had good reason to modify the Houston-Garcia combination to implement the use of templates, like described in Wu, and would have been able to do so with a reasonable

expectation of success, given Wu describes well-known methods and systems for creating, storing, and using such templates. (EX1009, [0017]-[0021]; EX1002 ¶70.)

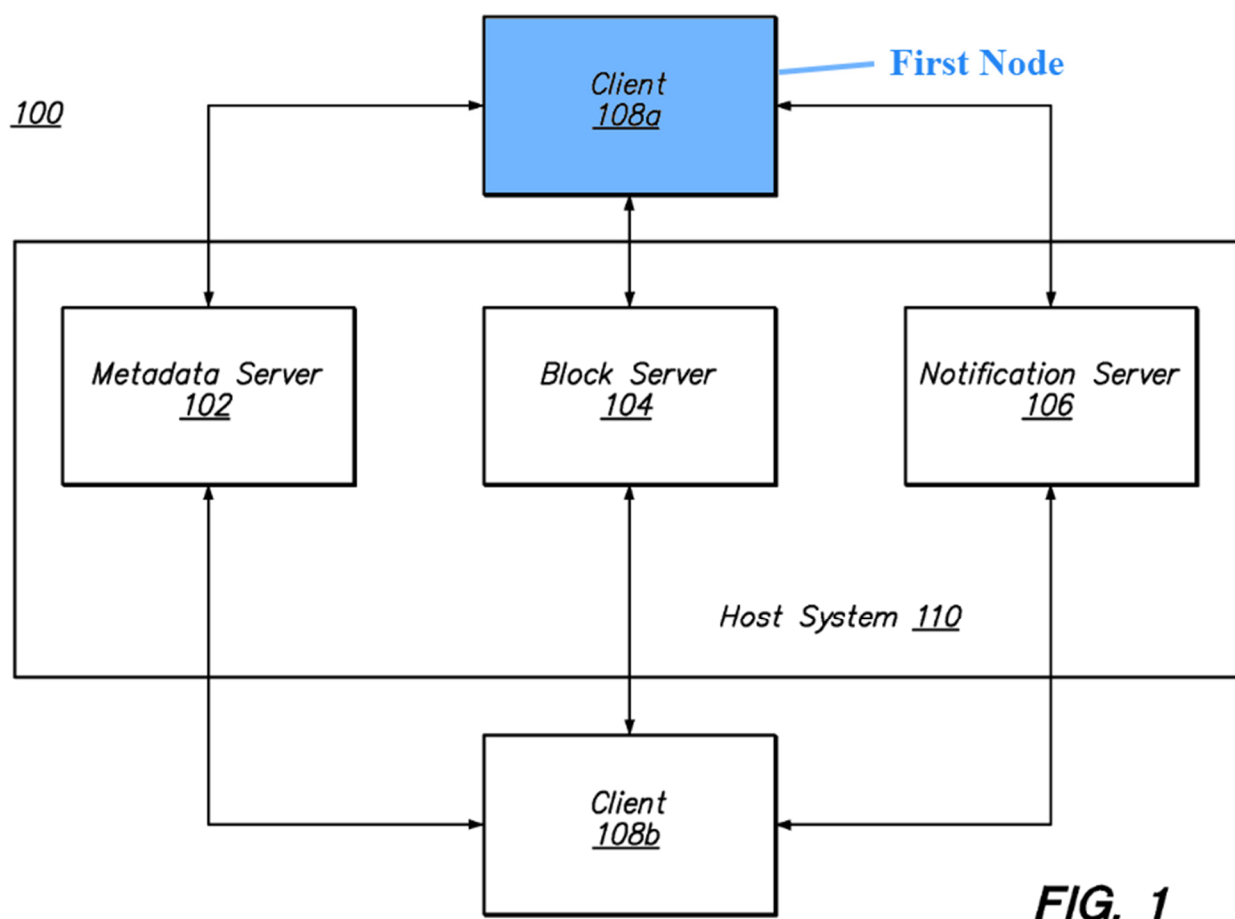
## **2. Claim 1**

### **a) [1a]**

To the extent the preamble of claim 1 is limiting, the combination of Houston, Garcia, and Wu discloses the features therein. (EX1002 ¶¶31-47, 71-72.) For example, as discussed in more detail with respect to the remaining features of claim 1, Houston discloses “a method for synchronizing a shared folder.” (EX1005, 9:44-10:14; *id.*, Abstract, 1:53-2:2, 3:25-28, 3:54-4:51, 7:17-8:5; Sections IX.A.2.b-p.)

### **b) [1b]**

Houston discloses this feature. (EX1002 ¶¶73-76.) For example, Houston discloses presenting (“causing...display”) various user interface (“UI”) windows on a client device (“a first node”). (Sections IX.A.2.c-e.) For example, as shown below in Figure 1, Houston discloses “a host system 110 and clients 108a, 108b.” (EX1005, 2:60; *id.*, Abstract, 3:22-24, 5:42-51.) Client 108a constitutes “a first node.” (EX1002 ¶74.)



(EX1005, FIG. 1 (annotated).)

Houston discloses presenting (“causing...display”) on client 108 various UI windows, such as those depicted in Figures 2-4, 10, and 11, some of which are reproduced below. (EX1005, 2:25-33, 3:3-43, FIGs. 2-4, 10, 11; EX1002 ¶75.)

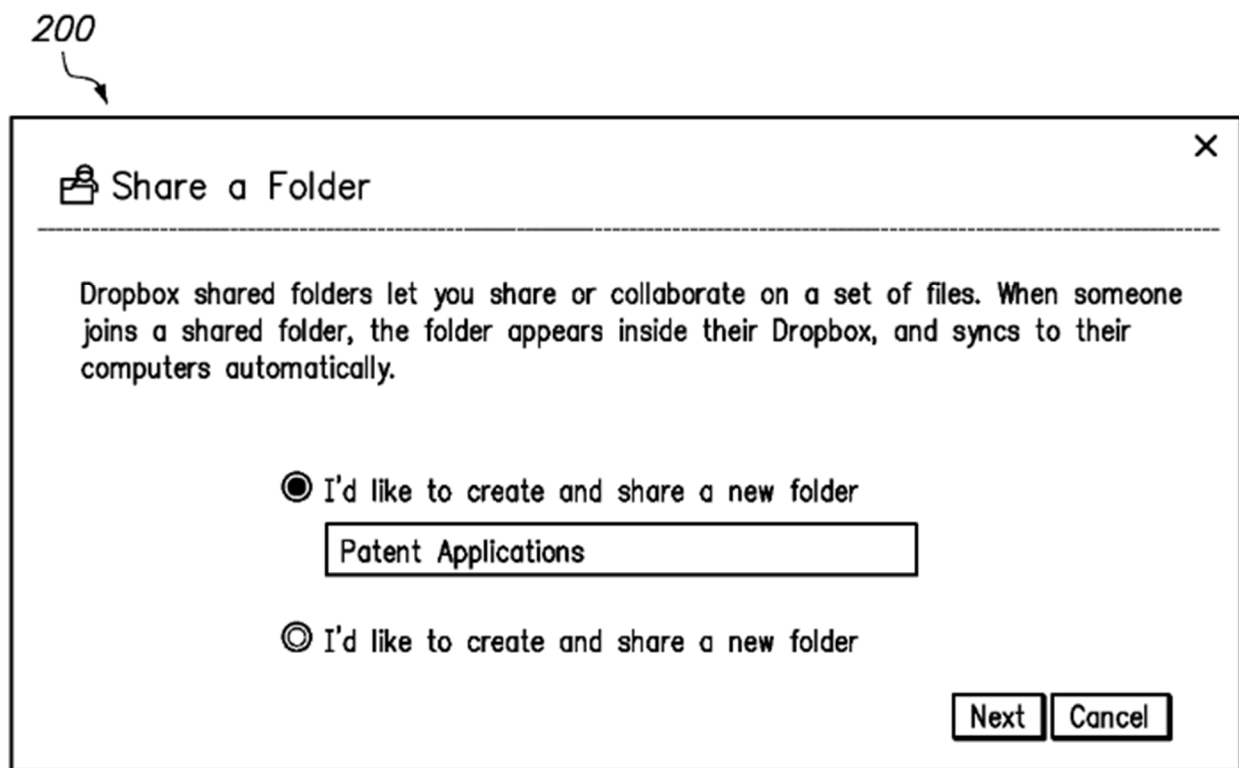


**FIG. 2**

(EX1005, FIG. 2.)

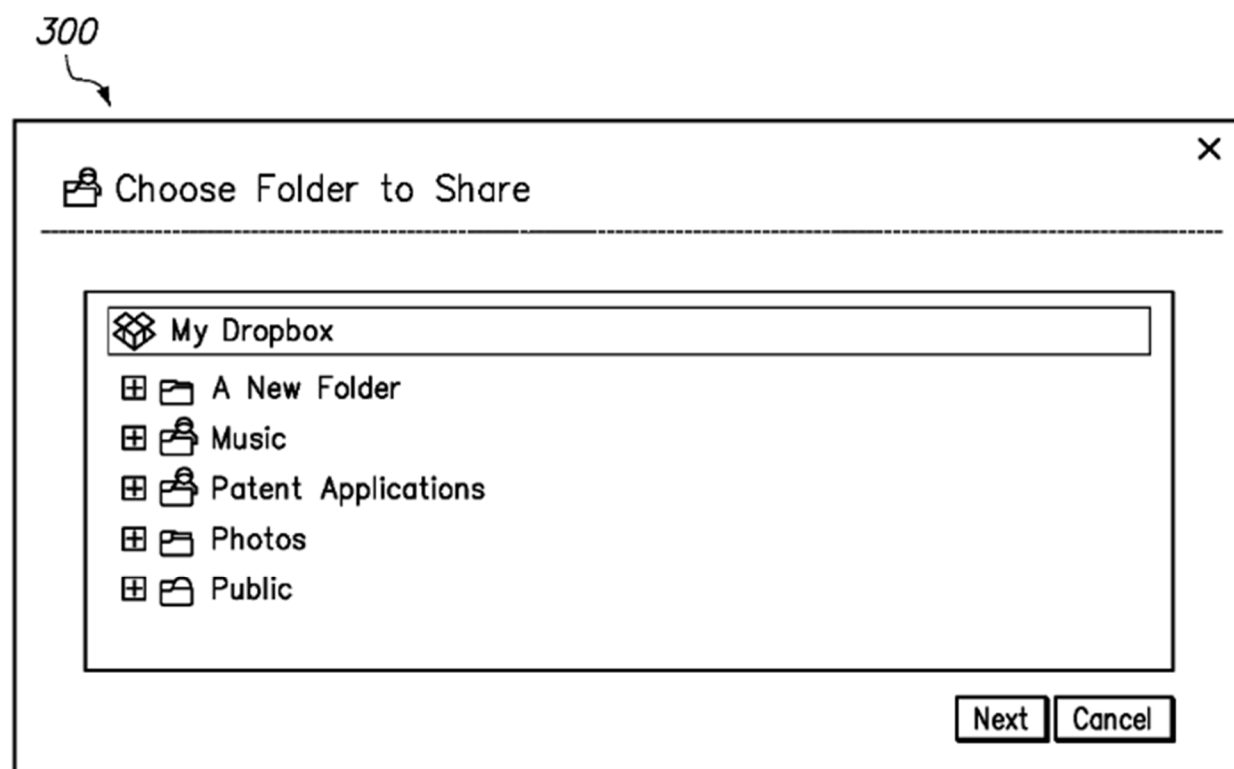


**FIG. 3**

(*Id.*, FIG. 3.)

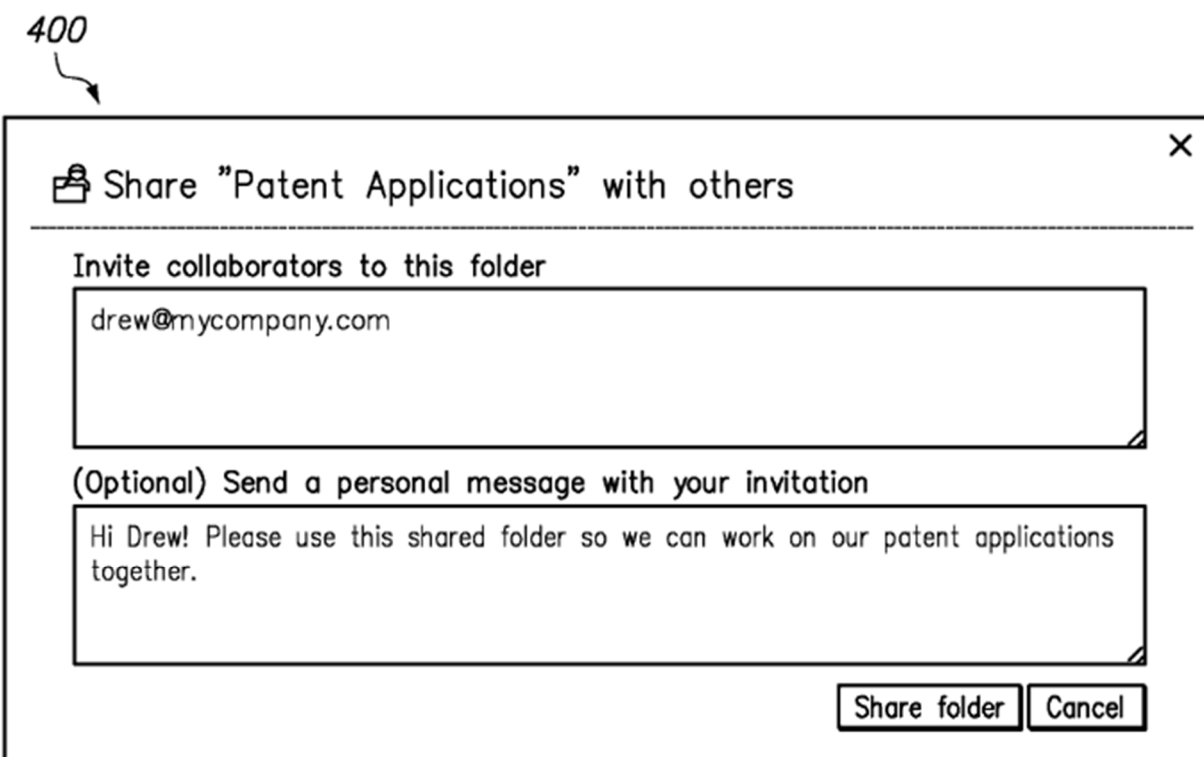


**FIG. 4**

(*Id.*, FIG. 4.)

**c) [1c]**

Houston discloses this feature. (EX1002 ¶¶77-87.) For example, as discussed below, Houston discloses a web-based window UI (“utilizing first hypertext markup language-equipped data”) with a display area presenting a plurality of selectable folders (“a first user interface element”), each designated by an identifier or name (“information associated with the at least one folder”), where such selection is received by the UI (“collecting”). (*Id.*)

With respect to “a first user interface element,” Houston discloses a window UI displaying selectable folders for sharing. (*Id.* ¶78.) For example, the “user interface window 300” illustrated in Figure 3 includes a plurality of folders designated by an identifier or name (e.g., “Music”), which a user can “select...to be shared.” (EX1005, 3:38-40; *id.*, 3:35-37, 7:18-40.) The identifiers and names constitute “information associated with at least one folder.” (EX1002 ¶78.)

When a user selects a folder (“the first user interface element”) and clicks the “Next” button, client 108a’s UI receives (“collecting”) the information (e.g., the folder’s name) corresponding to the selected folder.<sup>5</sup> (EX1005, 3:35-45, 7:18-58; EX1002 ¶79.)

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<sup>5</sup> Indeed, in order for the client to execute the process of sharing the folder, it must necessarily receive the information. (EX1002 ¶79; EX1005, 3:35-43, 7:32-58.) Otherwise, Houston’s system would not operate as disclosed. (EX1002 ¶79.) Thus, in addition to being explicitly disclosed, the claimed feature is inherently disclosed or rendered obvious by Houston. (*Id.*)

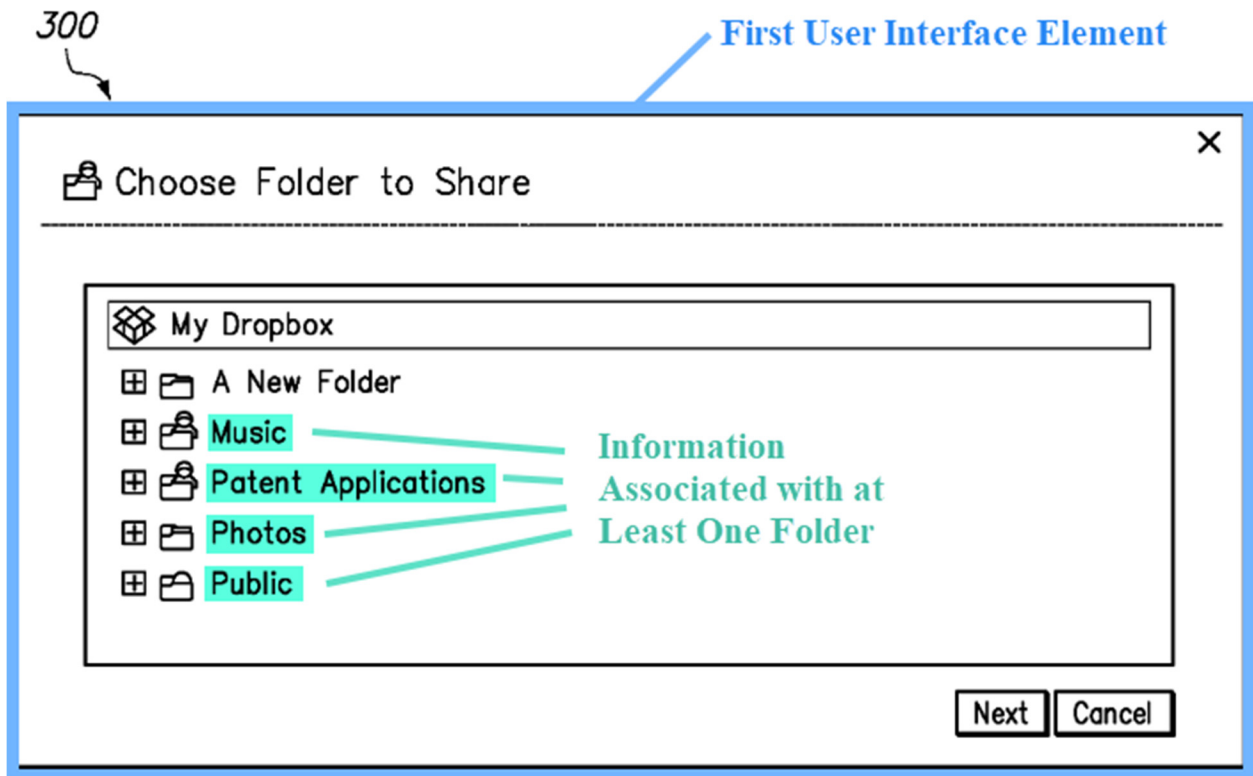
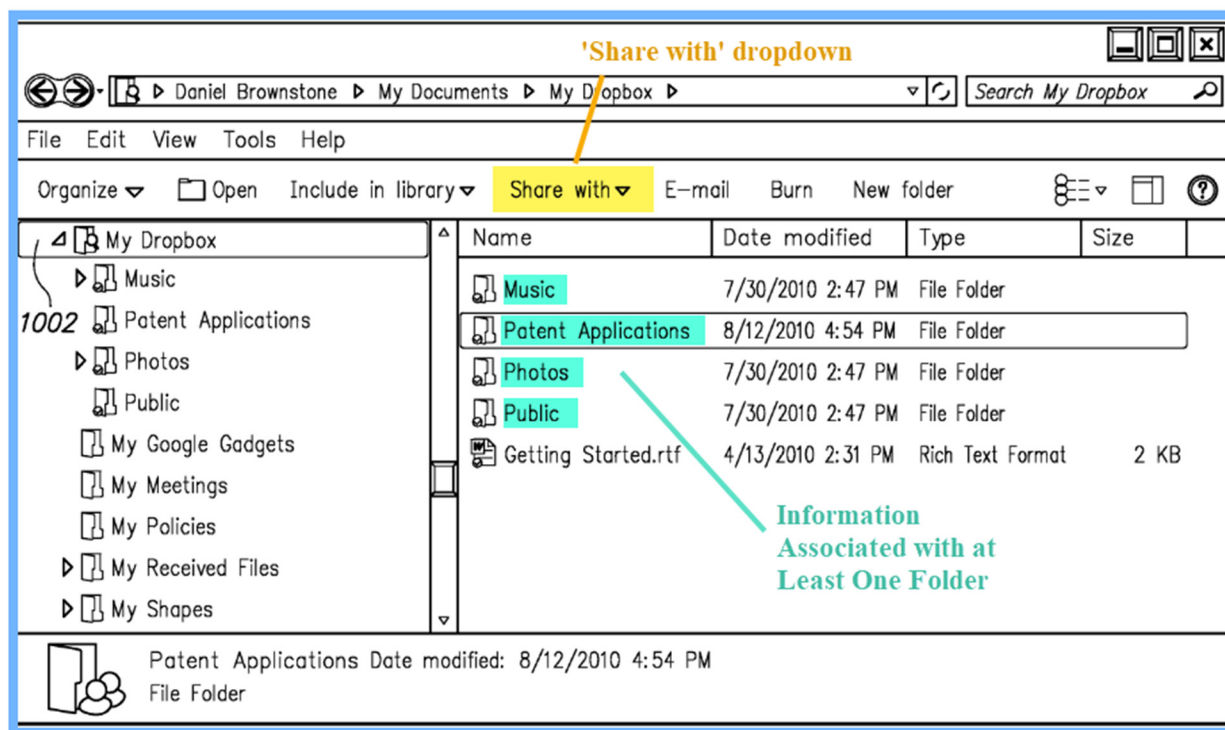


**FIG. 3**

(EX1005, FIG. 3 (annotated).)

As another example, Figures 10 and 11 below show a file explorer UI window with selectable folders, a “Share with” dropdown menu (Figure 10), and a context menu UI window (Figure 11) that appears when a user right clicks on one of the folders displayed in the file explorer UI window.



First User Interface Element

**FIG. 10**

(*Id.*, FIG. 10 (annotated).)

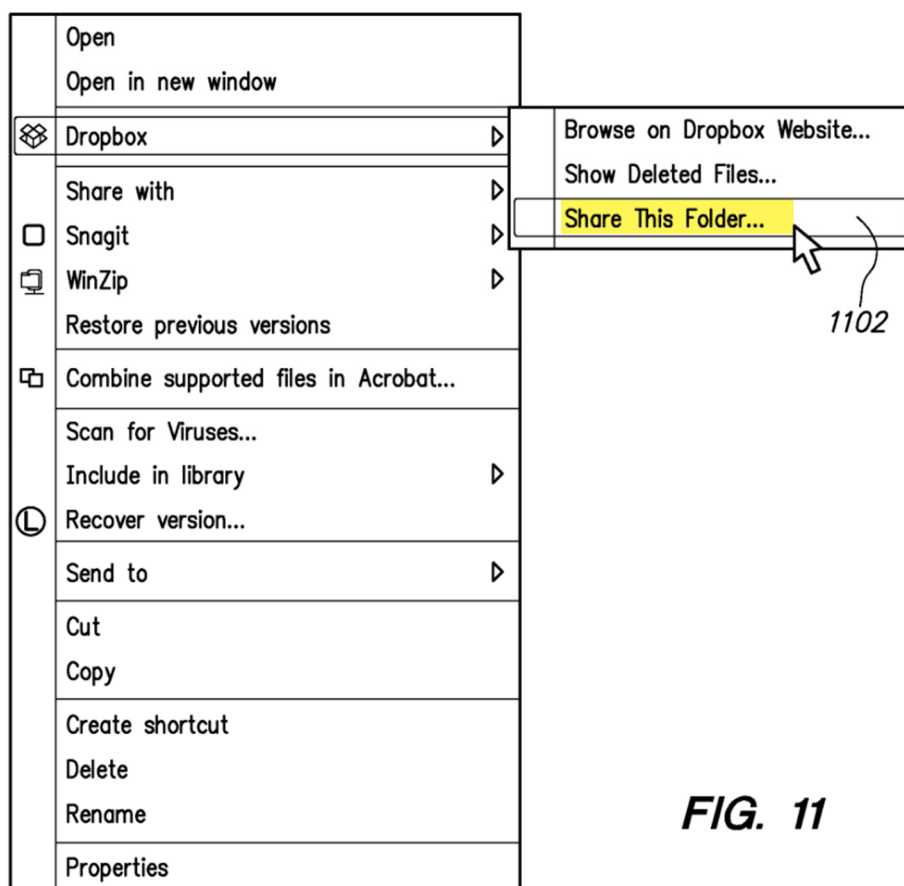


**FIG. 11**

(*Id.*, FIG. 11 (annotated).)

Houston explains that these figures illustrate “how a folder can be shared using software on client 108.” (*Id.*, 3:43-46.) According to Houston, the system allows users “to interact seamlessly with shared folders through their operating system’s standard user interface.” (*Id.*, 7:18-31.) For example, a user can share a folder by “right-clicking on the folder name and selecting a ‘Share This Folder...’ option 1102, as illustrated in FIG. 11.” (*Id.*, 7:32-36; *id.*, FIG. 10.) Figure 10 also illustrates a “Share with” dropdown menu, which a POSITA would have understood,

based on at least Figure 11, is another way to share a selected folder. (*Id.*, FIG. 10; EX1002 ¶81.)

Thus, when the user views a plurality of folders through a file explorer UI window like that shown in Figure 10 of Houston (“first user interface element”), where each folder is designated by a different name (“information associated with the at least one folder”), the user may right-click on one of the folders and select to share it with another user (as shown in Figure 11) or use the “Share with” dropdown menu to share a selected folder (as shown in Figure 10), said selection information being received by client 108a (“collecting”).<sup>6</sup> (EX1002 ¶¶80-83.)

Houston also discloses that the interfaces illustrated in Figures 3, 10, and 11 can be implemented via a web page from a web server (“utilizing first hypertext markup language equipped-data”). (*Id.* ¶84.) For example, regarding Figure 3, while Houston does not explicitly state how UI window 300 is implemented (EX1005, 2:28-30; 3:38-40, FIG. 3),<sup>7</sup> a POSITA would have understood that Houston discloses that UI window 300 could have been implemented via a web page from a web server. (EX1002 ¶84.) And while Houston explains that the interfaces in the exemplary

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<sup>6</sup> *Supra* n.5.

<sup>7</sup> Figure 3, however, is described in the context of Figure 2, which “illustrates a user interface window 200 accessed via a web server.” (EX1005, 3:34-35.)

embodiments illustrated in Figures 10 and 11 are implemented “using software on client 108” (EX1005, 3:43-46), Houston discloses that those interfaces also could have been implemented via a web page from a web server. Indeed, according to Houston, each of the above UIs can be implemented on a client using either (i) software embodied on the client, such as a standard user interface of the client’s operating system, or (ii) via a web interface. (*Id.*, 2:10-12, 3:31-43, 3:43-46, 7:18-21, 7:37-40 (“Alternatively, the user can use a web interface to communicate the share instructions to host system 110.”), 8:33-36, FIGs. 2-4, 10, 11.) For example, Houston explains that “a user can create a shared synchronized folder either through a user interface portion of client 108, or via a web server.” (*Id.*, 3:31-34.)

Such web interfaces were widely known by POSITAs to require the use of HyperText Markup Language, which satisfies “hypertext markup language-equipped code.” (EX1002 ¶85; EX1007, 347, 357; EX1008, 381.) But, even if PO argues that Houston does not teach such code, it would have been obvious to a POSITA to implement the use of such code, as it would have enabled users to access virtual folders over a network like the Internet using the standard markup language used for web browsers. (EX1002 ¶85.)

**d) [1d]**

Houston discloses this feature. (EX1002 ¶¶88-95.) For example, Houston discloses a UI window with a display area including a text box (“second user

interface element”) that allows a user to input, and therefore causes the client software to receive (“collecting”), a text string containing one or more account identifiers, such as email addresses or some other form of identifier, associated with users with whom a folder may be shared (“at least one object associated with at least one email address, the at least one object associated with at least one email address being the at least one email address or an alias associated with the at least one email address”). (*Id.*)

For example, as shown in Figure 4 below, Houston discloses a text box portion of a window UI labeled “Invite collaborators to this folder” for receiving as a text string the one or more email addresses of the intended recipient(s) of a shared folder. (EX1005, 2:31-33, 3:41-43.)

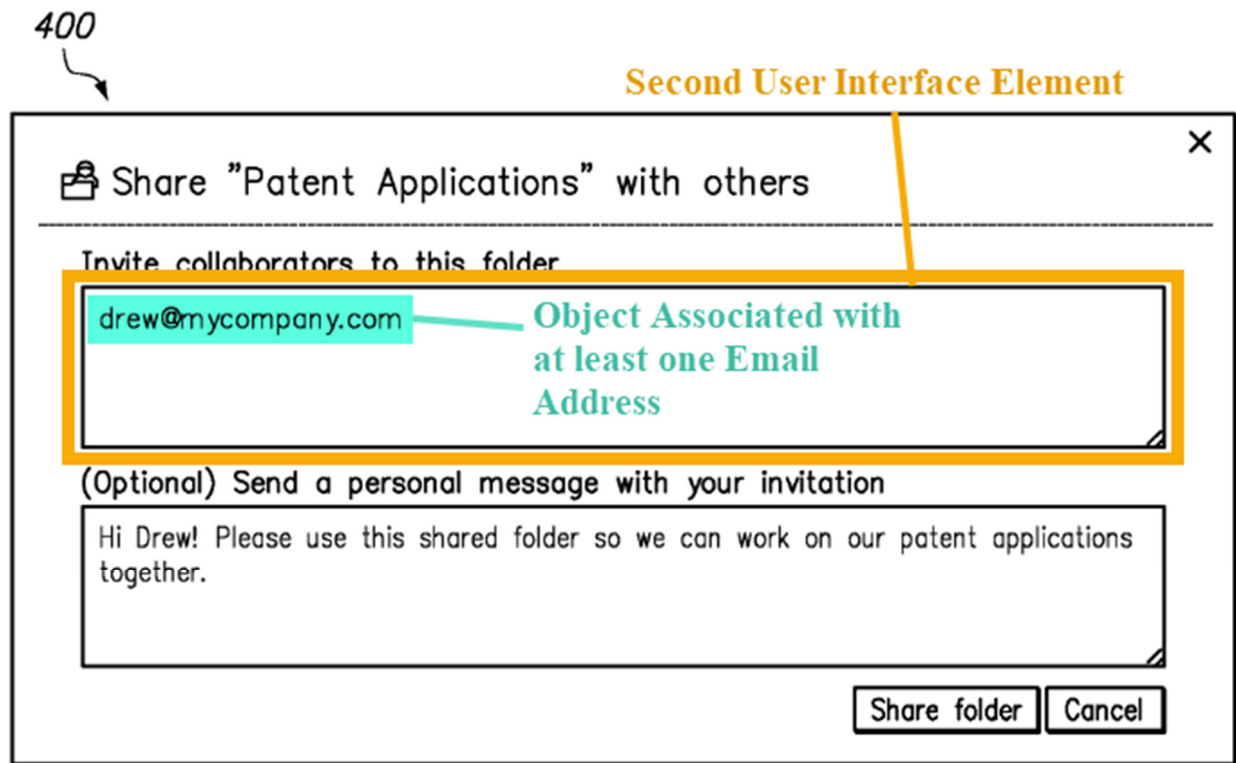


**FIG. 4**

(*Id.*, FIG. 4 (annotated).)

Such a text string is an “object associated with at least one email address, the at least one object associated with at least one email address being the at least one email address or an alias associated with the at least one email address,” consistent with the specification and claims of the ’215 patent, which explain that a text string, including a text string representing one or more email addresses, may be considered an “object.” (EX1001, 44:17-20 (“Exemplary data objects that may be requested via a data object request include...text data...”); EX1002 ¶¶89-90.)

As additional examples, Houston explains that “FIG. 10 and FIG. 11 provide a view of how a folder can be shared using software on client 108.” (EX1005, 3:43-

46.) Figure 10 illustrates that a user who wishes to share a folder may do so either by selecting a “Share with” dropdown menu option or by right-clicking on the folder name and selecting a “Share This Folder” option 1102, shown in Figure 11. (*Id.*, 7:32-36, FIGs. 10-11.) Although Figures 10 and 11 do not illustrate a window UI with a text entry field that allows a user to input email addresses with whom the selected folder will be shared, Houston explains that “the user also specifies the account identifier of the user(s) with whom the folder is to be shared” (“collecting at least one object associated with at least one email address, the at least one object associated with at least one email address being the at least one email address or an alias associated with the at least one email address”). (*Id.*, 7:38-40; EX1002 ¶91.) Thus, a POSITA would have understood that selecting either of the UI options would have displayed such a UI with a text entry field (“second user interface element”), consistent with Houston’s teachings discussed above. (EX1005, 2:31-33, 3:41-46, 7:18-40; EX1002 ¶91.) Or, at the very least, it would have been obvious to display such a UI with a text entry field, as Houston teaches using such a field for the same purpose with respect to Figure 4, and a POSITA would have recognized that such a field would have allowed a user to easily identify recipients using email addresses, which were well known and widely used at the time for communication. (EX1002 ¶92.)

As discussed for claim element 1.c, a POSITA would have understood that Houston further teaches that Figures 4, 10, and 11 can be implemented via a web interface (“utilizing second hypertext markup language-equipped code”). (EX1005, 2:10-12, 2:31-33, 3:32-34, 3:40-43, 3:43-45, 7:18-21, 7:37-40, 8:33-36, FIGs. 2-4, 10, 11; EX1002 ¶¶93-94.) For example, similar to UI window 300 in Figure 3, while Houston does not explicitly state how UI window 400 in Figure 4 is implemented (EX1005, 2:31-33, 3:40-43),<sup>8</sup> a POSITA would have understood that Houston discloses that UI window 400 could have been implemented via a web page from a web server. (EX1002 ¶94.) And while Houston explains that the interfaces in Figures 10 and 11 are implemented “using software on client 108” (EX1005, 3:43-46), a POSITA would have understood from Houston’s disclosure that those interfaces could have also been implemented via a web page from a web server. (EX1002 ¶94.) Indeed, Houston explains that each of these UIs can be implemented via a web interface. (Section IX.A.2.c.) And, as discussed above, such a web interface utilizes hypertext markup language-equipped code, or, at a minimum, it would have been obvious to use such code. (Section IX.A.2.c; EX1002 ¶94.)

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<sup>8</sup> Figure 4, however, is described in the context of Figure 2, which “illustrates a user interface window 200 accessed via a web server.” (EX1005, 3:34-35.)

e) [1e]

Houston discloses this feature. (EX1002 ¶¶96-101.) For example, as discussed below, Houston discloses a window UI including a share folder button (“a third user interface element”) that allows a user to input a user interface command (“detecting an indication of a selection”) to cause a folder to be shared with another user (“initiation of a sharing of the at least one folder”). (*Id.*)

For example, UI window 400 in Figure 4 below displays a “Share Folder” button. (EX1005, FIG. 4.) Because Houston explains that UI 400 enables a user to “invite those people with whom he would like to share the folder,” a POSITA would have understood that Houston discloses that the “Share Folder” button is clicked to indicate to client 108a that the user wishes to initiate sharing with the indicated recipient(s). (*Id.*, 2:31-33, 3:40-43, 7:32-38, FIG. 4; EX1002 ¶97.)

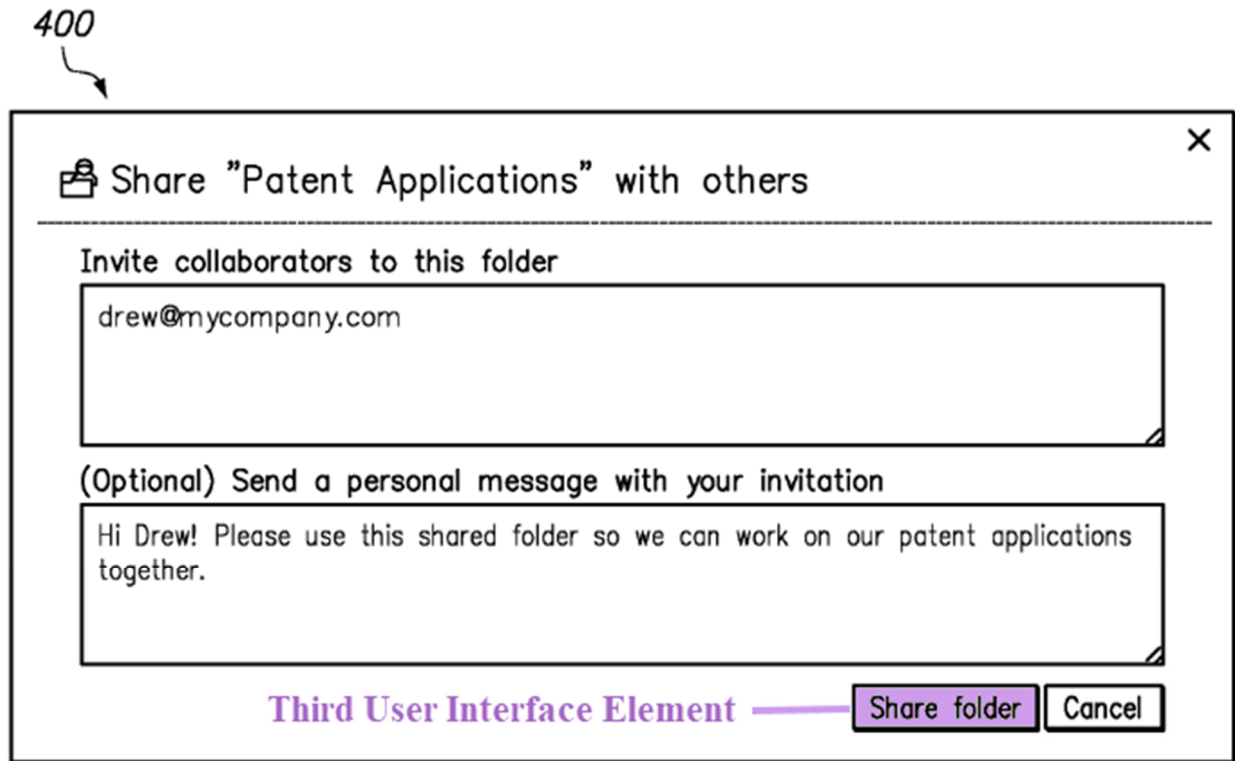


**FIG. 4**

(EX1005, FIG. 4 (annotated).)

As additional examples, with respect to Figures 10 and 11, although a button for initiating sharing of the folder is not shown, a POSITA would have understood that the client software would have provided such a button to initiate sharing after the "Share This Folder" menu option 1102 or the "Share with" dropdown menu option is selected, consistent with Houston's teachings. (*Id.*, 3:41-46, 7:35-40; EX1002 ¶98.) Or, at a minimum, it would have been obvious to provide such a button, as Houston teaches using such a button for the same purpose with respect to Figure 4, and a POSITA would have recognized that UI buttons were well known and widely used for initiating action in a software system. (EX1002 ¶98.)

As discussed for claim elements 1.c and 1.d, Houston further teaches that the UIs in Figures 4, 10, and 11, including the share folder button, can be implemented via a web interface, which discloses or renders obvious “utilizing second hypertext markup language-equipped code.” (EX1005, 2:10-12, 2:31-33, 3:32-34, 3:40-43, 3:43-45, 7:18-21, 7:37-40, FIGs. 2-4, 10, 11; EX1002 ¶99; Sections IX.A.2.c, IX.A.2.d.)

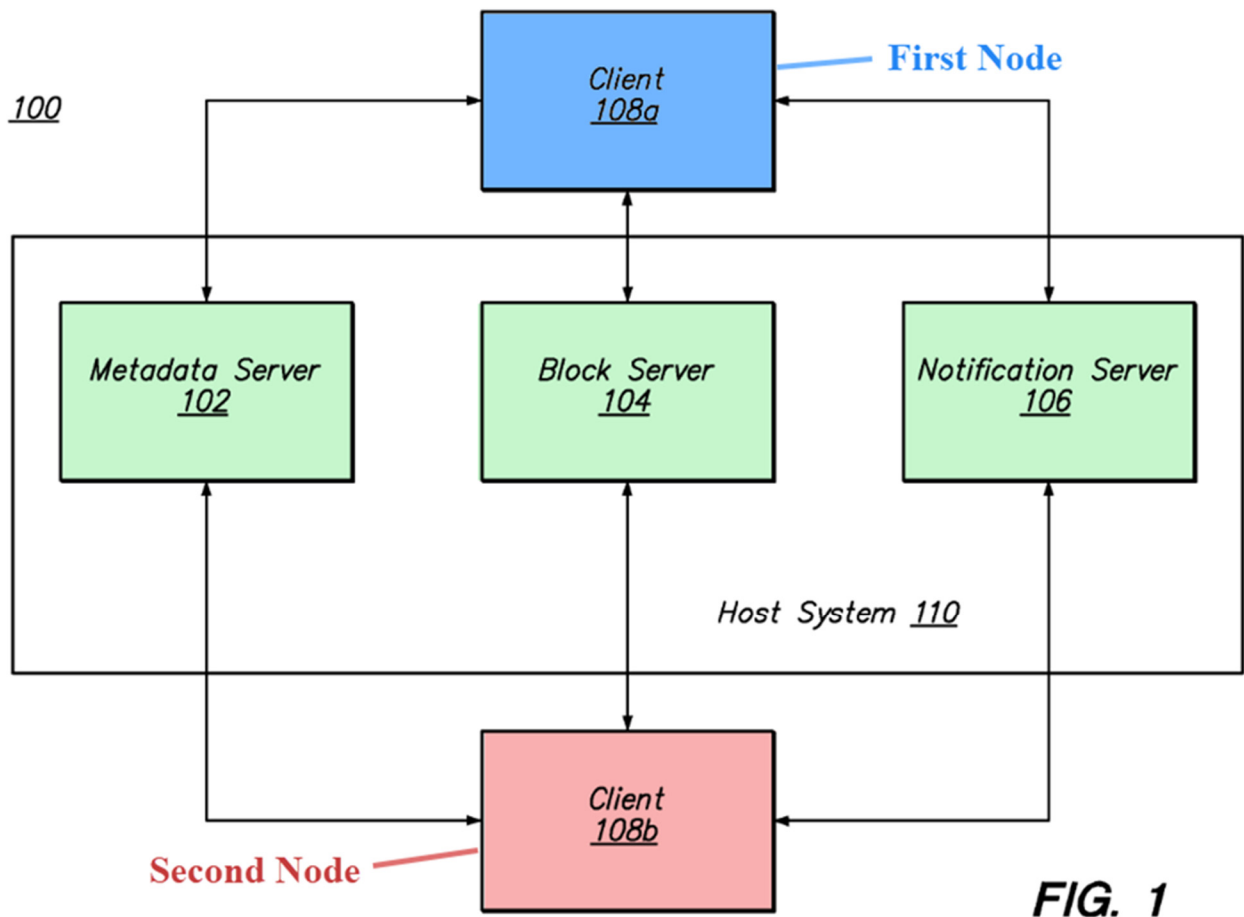
Additionally, Figure 4 illustrates that the “Share folder” button and the “Invite collaborators to this folder” text entry field are displayed in the same UI, and therefore both “utiliz[e] the second hypertext markup language-equipped data.” (EX1002 ¶100.) Similarly, with respect to Figures 10 and 11, as discussed above, a POSITA would have understood that the UI that provides the text entry field would have also provided a button to initiate sharing, or at least would have found it obvious to include both in the same UI. (EX1005, 3:41-46, 7:35-40; EX1002 ¶100.) A POSITA would have recognized that including the text entry field and button in the same UI would have provided a more convenient UI requiring fewer clicks. (EX1002 ¶100.)

**f) [1f]**

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶102-108.) For example, as explained above, Houston discloses a user’s selection of a folder designated by an identifier or name (“information associated with the at

least one folder”), entry of a text string containing one or more account identifiers (“object associated with at least one email address”) with whom the user wishes to share a folder, and click of a share folder button (“indication of a selection of the third user interface element to cause an initiation of a sharing of the at least one folder”) to initiate sharing the selected folder with the users / clients (“second node”) identified by the account identifiers. (*Id.*; Sections IX.A.2.c-e.)

As explained below, the combination of Houston and Garcia discloses causing client 108b (“a second node”), based on the “information,” “object,” and “indication,” to receive an email message sent from host system 110 through a network connection to share a folder (“causing, at a second node, receipt of at least one email...to cause the initiation of the sharing of the at least one folder”). (EX1002 ¶¶103-107.) For example, as shown in connection with Figure 1, Houston discloses “a host system 110 and clients 108a, 108b,” where Client 108b constitutes “a second node.” (EX1005, 2:60; *id.*, 3:22-24, 5:42-44; Section IX.A.2.b; EX1002 ¶104.) The host system 110 maintains synchronized shared folders across multiple clients through the use of multiple servers that facilitate communication of information associated with the folders. (EX1005, 1:53-54, 2:56-3:46.)



(*Id.*, FIG. 1 (annotated).)

Houston discloses that when a user of client 108a initiates sharing of a folder, client 108a communicates the related information received from the user (*e.g.*, a name or identifier of the folder and a text string containing email addresses of recipients) to host system 110 through a network connection, which then handles sharing the folder with the users / clients identified by the email addresses. (*Id.*, 3:41-46, 6:5-8, 7:32-48.)

Houston does not, however, explicitly disclose that the second node receives an email message in order for the folder to be shared. Nevertheless, as discussed in

Section IX.A.1, Garcia discloses such features. (EX1002 ¶¶53-58, 106.) For example, Garcia discloses sending an email with a list of virtual folders or files as a web link (instead of an attachment) to other clients. (EX1006, 10:32-40 (“The Web link tab 335 includes a list of folders or files that have been shared as a link with other users...and an icon 915[] places the link onto the clipboard to be copied into an email, text, or other transmittal.”), 11:39-43, claim 3, FIGs. 11, 12.) And, as discussed in Section IX.A.1, it would have been obvious to a POSITA to modify Houston such that client 108b receives an email message from client 108a in order to share a folder, similar to as described in Garcia. (EX1002 ¶¶63-68, 107.) A POSITA would have recognized the benefits (*e.g.*, sharing folders and files via email, a well-known, widely-used, and convenient form of communication, without needing to transmit and/or locally store such folders and files, which may be large) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

**g) [1g]**

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶109-112.) As explained below, the combination of Houston and Garcia discloses that the email identifies the folder selected for sharing (“identifies the information associated with the at least one folder”), as explained below. (*Id.*) For example, as discussed for claim element 1.f, Garcia’s email includes a web link identifying the

shared folder or files. (EX1006, 10:32-40 (“The Web link tab 335 includes a list of folders or files that have been shared as a link with other users...and an icon 915[] places the link onto the clipboard to be copied into an email, text, or other transmittal.”), 11:17-31, 11:39-43, FIGs. 11, 12; Section IX.A.2.f.) And, as discussed in Section IX.A.1, based on such teachings, it would have been obvious to a POSITA to modify Houston such that client 108b receives an email message from client 108a that identifies the shared folder, similar to as described in Garcia. (EX1002 ¶¶53-58, 63-68, 111.) A POSITA would have recognized the benefits (*e.g.*, identify the folder so the recipient knows what is being shared) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

**h) [1h]**

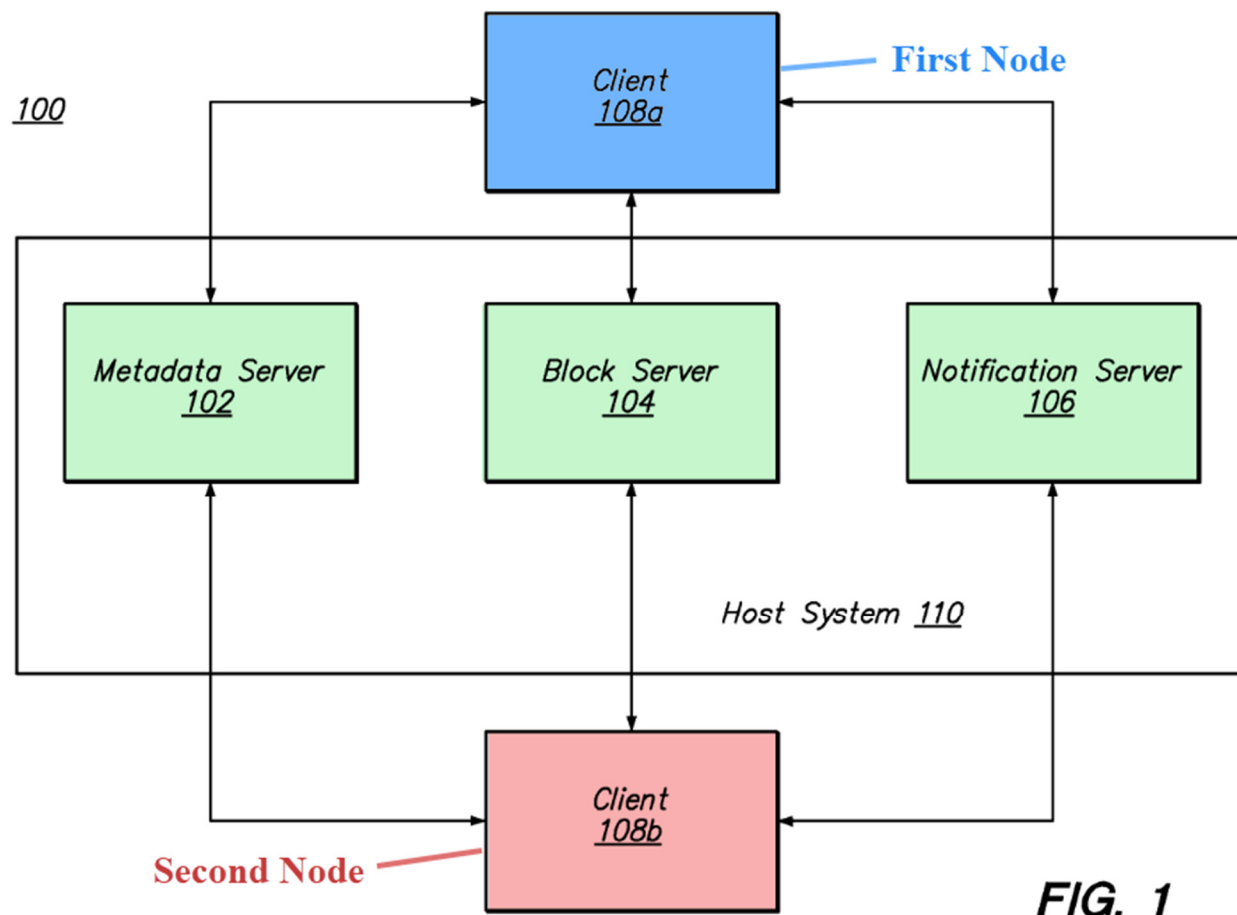
The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶113-116.) As discussed below, the combination of Houston and Garcia discloses that the email includes a web link (“includes an Hypertext Transfer Protocol (HTTP) link”) to the shared folder. (*Id.*) For example, as discussed in Section IX.A.2.f, Garcia’s email includes a web link, which were known by POSITAs to be executed via Hypertext Transport Protocol. (EX1006, 2:35-37, 4:51-53, 10:32-40, 11:11-43, claim 3, FIGs. 11, 12; EX1007, 347, 357; EX1008, 381; Sections IX.A.1, IX.A.2.f; EX1002 ¶114.) And, as discussed in Section IX.A.1, based on Garcia’s teachings, it

would have been obvious to a POSITA to modify Houston such that client 108b receives an email message from client 108a that includes an HTTP link to the shared folder, similar to as described in Garcia. (EX1002 ¶¶53-58, 63-68, 115.) Such a POSITA would have recognized the benefits (*e.g.*, no need to email and locally store folders and files, which may be large) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

i) [1i]

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶117-125.) As discussed below, the combination of Houston and Garcia discloses that the email includes a web link to the shared folder but does not attach the shared folder (“does not include a file attachment”) such that no file is received by the invited user (“for avoiding at least one file from being communicated to and stored at the second node”) until it is requested by the invited user (“until an initiation of the communication of the at least one file by a user of the second node is detected and the communication commences”) from the virtual drive where it is stored (“via at least one server that stores the at least one file”). (*Id.*)

For example, as shown in Figure 1 below, Houston discloses “a host system 110 and clients 108a, 108b.” (EX1005, 2:60; *id.*, 3:22-24, 5:42-44.)



(*Id.*, FIG. 1 (annotated).)

Houston discloses that host system 110 comprises multiple servers used to facilitate communication of information associated with shared folders among multiple clients (*id.*, 1:53-54, 2:56-3:46), and, as shown in Figure 5 below, that a client 108 includes storage (*i.e.*, client database 502) and various operational engines and modules involved in sharing (*id.*, 3:47-53).

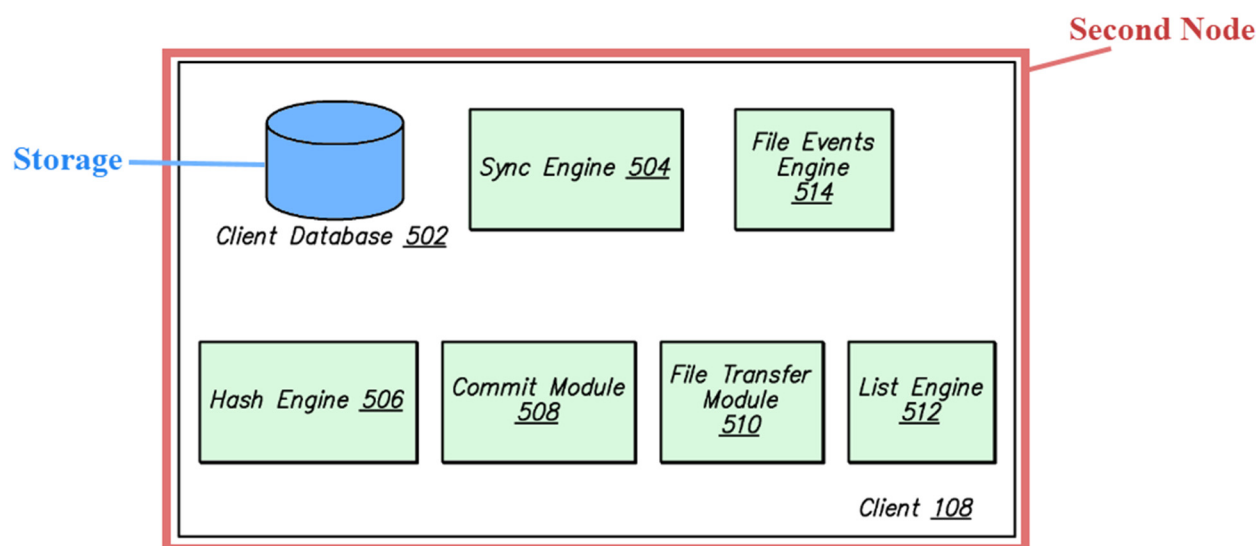


**FIG. 5**

(*Id.*, FIG. 5 (annotated).)

Houston discloses that when a user of client 108a initiates sharing of a folder, share instructions are communicated to, and the folder is synchronized on, host system 110, which then handles sharing the folder with the users / clients identified by the email addresses (*e.g.*, the user of client 108b). (*Id.*, 3:40-46, 5:42-45, 6:5-8, 7:32-48.) The metadata server 102 then moves the folder to a namespace at host system 110 and performs a namespace mapping function to link the namespace at host system 110 with the namespace at client 108a. (*Id.*, 7:18-48.)

Houston discloses that, after the user of client 108b is invited by host system 110 to share a folder, the user may access the contents of the synchronized folder by accepting the invitation to share the folder. (*Id.*, 7:18-58.) When the user of client 108b (“a user of the second node”) accepts an invitation to share a folder (“an

initiation of the communication of the at least one file...is detected”), host system 110 performs a namespace mapping function to link the folder at the host system 110 with the invited user’s client 108b, and the invited user receives a version of a file that reflects a version stored at the host system 110 (“the communication commences via at least one server that stores the at least one file”). (*Id.*, Abstract, 1:59-2:2, 3:25-28, 5:37-6:4, 6:20-22, 7:49-58 (“Assuming the user accepts the invitation to share the folder...[t]he invited user’s client then obtains the latest version of the synchronized file....”); EX1002 ¶¶118-122.)

However, as discussed for claim element 1.f, Houston does not explicitly disclose that a user receives an email to share a folder, or, accordingly, that such an email is received without an attachment, so that no file is received by the invited user until it is requested by the invited user. But, this feature is disclosed by Garcia. (EX1002 ¶¶53-59, 122-123.)

For example, as discussed in Section IX.A.1, Garcia discloses sharing a folder via an email that includes a web link to the folder rather than attaching the folder (“does not include a file attachment”). (EX1006, claim 3 (“The method of claim 1, further comprising providing a feature in the user interface that enables the user to generate a web link to any folder, or file therein, displayed in the user interface.”), 2:35-37, 4:51-53, 10:32-40 (“The Web link tab 335 includes a list of folders or files that have been shared as a link with other users...and an icon 915[] places the link

onto the clipboard to be copied into an email, text, or other transmittal.”), 11:11-31, 11:35-43, FIGs. 11-12; EX1002 ¶¶53-59, 123.) Garcia further discloses that folders are stored on a virtual drive (*e.g.*, server) remote from a user’s client such that only “when a user double clicks on a file or item in a remote folder in the virtual drive” does “the server download[] its copy of the file/item to the local synchronization software client.” (EX1006, 5:32-39; *id.*, 2:37-41, 2:66-3:3, 4:53-57, 4:58-60, 5:4-13, 5:32-35, 6:5-27, 7:11-33, 10:52-11:10, claim 4, FIGs. 10, 20a; Section IX.A.1; EX1002 ¶¶53-59, 123.)

As discussed in Section IX.A.1, a POSITA would have found it obvious based on these teachings to modify Houston such that client 108b receives an email that includes a link to a shared folder stored on a virtual drive, where no file is received by client 108b from the server until a user signals a request for such a file, similar to as described in Garcia. (EX1002 ¶¶63-68, 124.) Such a POSITA would have recognized the benefits (*e.g.*, no need to transmit and/or locally store all shared folders and files, which may be large) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

**j) [1j]**

The combination of Houston, Garcia, and Wu discloses this feature. (EX1002 ¶¶126-129.) Neither Houston nor Garcia expressly disclose sending an email that “is

at least partially pre-written.” This feature, however, would have been obvious based on the teachings of Wu, as explained below. (*Id.* ¶¶69-70, 126-128.)

For example, Wu describes producing emails using “predetermined subject templates” and “predetermined content templates” stored in databases. (EX1009, [0018]; *id.*, [0021] (“A content template is selected from the E-mail content database 162 as the content of the E-mail.”).) Based on these teachings, it would have been obvious to a POSITA to modify, with a reasonable expectation of success, the Houston-Garcia combination, such that the email is produced using predetermined templates, similar to as described in Wu, so that emails sharing folders with multiple recipients can be produced more easily and quickly, as discussed in Section IX.A.1. (EX1002 ¶¶69-70, 126-128.)

**k) [1k]**

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶130-132.) For example, as explained above, Houston discloses a user clicking a share folder button (“third user interface element”) to share the selected folder with the users / clients identified by the account identifiers. (*Id.*; Section IX.A.2.e.) Houston does not disclose any intervening steps requiring the involvement of any client / user between when a user clicks the button to send an invitation to share a folder and when the invitation is accepted. (EX1005, 3:32-45, 7:18-58, FIG. 4; EX1002 ¶130.)

As discussed for claim element 1.f, Houston does not expressly disclose sharing a folder via an email. However, as discussed in Section IX.A.1, Garcia discloses sharing a folder via email, and, similar to Houston, discloses no intervening action required from either the user who sends or the user who receives the email. (EX1006, 2:35-41, 3:58-61, 4:51-57, 10:32-43, 11:17-19, 11:27-31; 11:39-43.); EX1002 ¶¶58, 131; Sections IX.A.2.f-j.) And, as discussed in Section IX.A.1, based on such teachings, it would have been obvious to a POSITA to modify Houston such that client 108b receives an email message from client 108a without needing any additional user involvement after a user selects the share folder button, similar to as described in Garcia. (EX1002 ¶¶53-58, 63-68, 131.) A POSITA would have recognized the benefits (*e.g.*, more easily manage and share files and folders) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

**D) [11]**

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶133-138.) As discussed below, Houston discloses that by accepting an invitation to share a folder by clicking a link in the received email (“based on a detection of an indication that the HTTP link of the at least one email has been selected”), a user of client 108b may notify host system 110 (“causing, at the second node, sending, to at least one server, of a signal”) to make the folder accessible (“causing creation of a

first representation of the at least one folder, in a location among one or more folders stored at the at least one server") via a web interface ("displayable via at least one web page"). (*Id.*)

For example, Houston discloses that a folder may be shared with a user identified by an email address. (EX1005, 3:39-46, 7:32-48.) The user may then accept the invitation, which client 108b communicates to host system 110 ("causing, at the second node, sending, to at least one server, of a signal"), after which metadata server 102 creates a link between the shared folder at the host system and the invited user's client, notification server 106 provides notifications to the user(s), and the user(s) obtains access to the folder from host system 110 ("the at least one folder...that is stored at the at least one server"). (*Id.*, 2:59-62, 3:22-28, 5:37-60, 7:1-3, 7:49-58.) Houston further discloses that the shared folder is made accessible ("causing creation of a first representation of the at least one folder, in a location among one or more folders") and is presented through a web user interface created and provided by host system 110 ("displayable via at least one web page"). (*Id.*, 2:11-12, 3:32-34, 3:34-35, 7:37-38.)

However, as discussed for claim elements 1.f and 1.h, Houston does not explicitly disclose sending an email including an HTTP link to a shared folder, and therefore likewise does not disclose "detection of an indication that the HTTP link of the at least one email has been selected."

Nevertheless, as discussed in Sections IX.A.2.f and IX.A.2.h, the combination of Houston and Garcia discloses sharing a folder by sending an email including an HTTP link. (EX1002 ¶¶136.) As further discussed in Section IX.A.1, Garcia discloses that the user receiving the email may then click on the link therein (“detection of an indication that the HTTP link of the at least one email has been selected”) in order to access the folder. (EX1006, 4:51-53, 4:60-67, 5:20-26, 11:24-31 (“When the contact clicks on the link to folder 1115, the contents of the folder are shared with the contact.”); EX1002 ¶¶59, 136.) And, as further discussed in Section IX.A.1, Garcia discloses a web interface (“displayable via at least one web page”) with a “Shared Folders tab” that displays shared folders (“a first representation of the at least one folder, in a location among one or more folders, that is stored at the at least one server”). (EX1006, 11:44-53; *id.*, 9:7-9, FIG. 13; EX1002 ¶¶59-60, 136.)

As further discussed in Section IX.A.1, it would have been obvious to a POSITA, based on the teachings of Houston and Garcia, to modify Houston’s system such that the user of client 108a may share a folder with the user of client 108b by sending client 108b an email with an HTTP link to the folder that, when selected, causes the folder to be presented in a location in the file system of the server storing the folder so that the folder is viewable on client 108b through a web interface, similar to as described in Garcia. (EX1002 ¶¶63-68, 137.) A POSITA would have

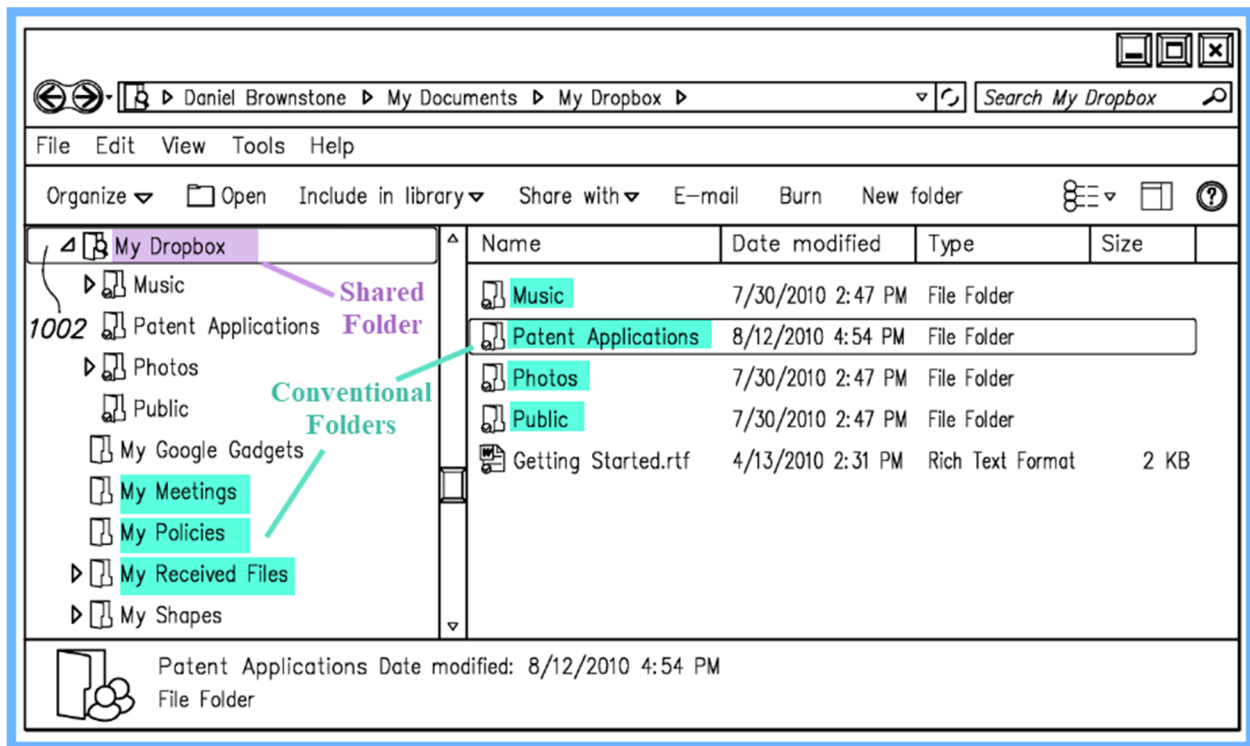
recognized the benefits (*e.g.*, to easily synchronize and make available folders shared across multiple clients) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

**m) [1m]**

Houston alone or in combination with Garcia discloses this feature (EX1002 ¶¶139-142.) For example, as discussed below, Houston alone or in combination with Garcia discloses that a client receives access to a shared folder and a web interface to view the folder from host system 110 (“causing, at the second node, receipt of the at least one web page, that results in display, at the second node and via the at least one web page, the first representation of the at least one folder that is stored at the at least one server”). (*Id.*)

**(1) Houston Discloses this Feature**

As explained for claim element 1.c, Houston’s Figure 10 illustrates a window UI that presents representations of folders, including shared folders stored at a server (*e.g.*, “My Dropbox”), with which a user may interact. (EX1005, 2:48-49, 2:59-62, 3:22-28, 3:41-46, 5:37-60, 7:1-3, 7:18-40, 7:32-58, FIG. 10.) Houston explains that the UI in Figure 10 can be implemented as a web interface received from a web server, as explained for claim element 1.c.



User Interface Window

FIG. 10

(EX1005, FIG. 10 (annotated).)

## (2) The Combination of Houston and Garcia Discloses this Feature

To the extent PO argues that Houston does not disclose this feature, as discussed in Section IX.A.1, a POSITA would have found it obvious to modify Houston such that client 108a's invitation to share a folder consists of an email containing a web link that when selected results in display of the shared folder via a webpage, similar to as described in Garcia. (Sections IX.A.2.f, h, l; EX1002 ¶¶60-62, 141.) A POSITA would have recognized the benefits (*e.g.*, more easily manage and share files and folders) and had a reasonable expectation of success combining

the teachings of Houston and Garcia in such a way. (EX1002 ¶¶63-68, 141; Section IX.A.1.) Thus, the combination of Houston and Garcia discloses this feature.

**n) [1n]**

Houston alone and in combination with Garcia discloses this claim element. (EX1002 ¶¶143-148.)

**(1) Houston Discloses this Feature**

Houston states that its techniques are “implemented by computer programs” that “could be *downloaded* to reside on and be operated from different platforms used by real time network operating systems.” (EX1005, 8:40-50, 8:64-9:4.) For example, Houston discloses that “[c]lient 108 executes an operating system...and includes memory, storage, a network interface, and other conventional computer hardware....” (*Id.*, 3:11-17.) Figure 5 below provides additional details regarding the components of client 108 that may be downloaded (“receipt of code for storage at the second node”). (*Id.*, 3:47-53; EX1002 ¶143.)

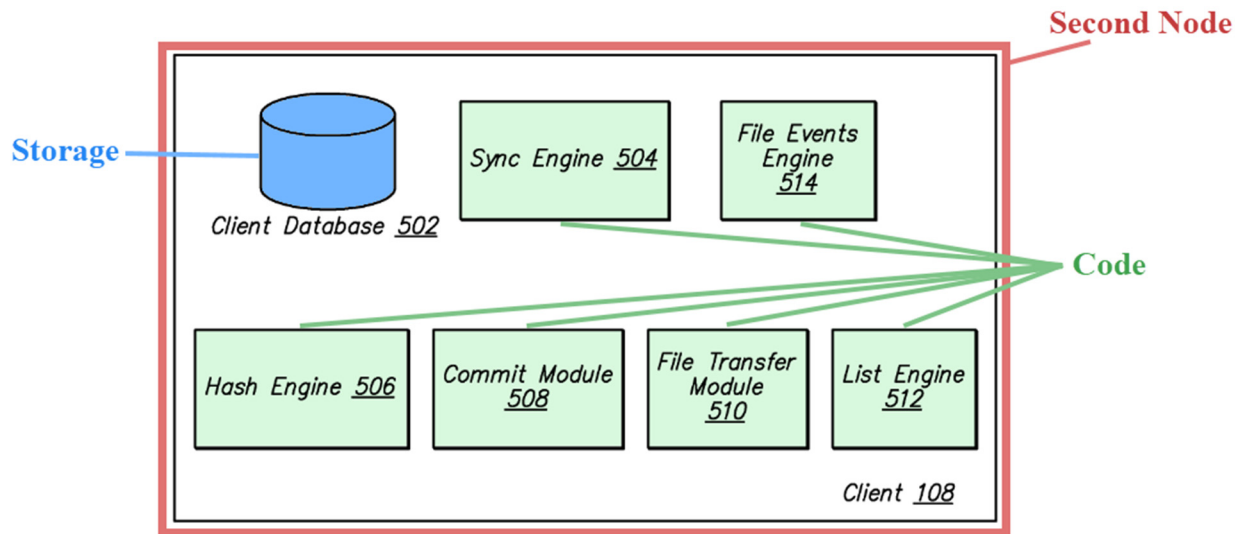


**FIG. 5**

(EX1005, FIG. 5 (annotated).)

Houston discloses that client 108b (“the second node”) enables a user to interact with files and folders on its local file system in a conventional manner via its operating system or other downloaded software (“cooperation with a file explorer interface of a client-based file explorer application”). (*Id.*, 3:18-20, 3:25-34, 3:43-45, 5:42-44, 7:21-31, 8:64-9:4; EX1002 ¶144.) As Figure 10 below shows, Houston discloses “allowing users of system 100 to interact seamlessly with shared folders through their operating system’s standard user interface.” (EX1005, 7:19-31.)

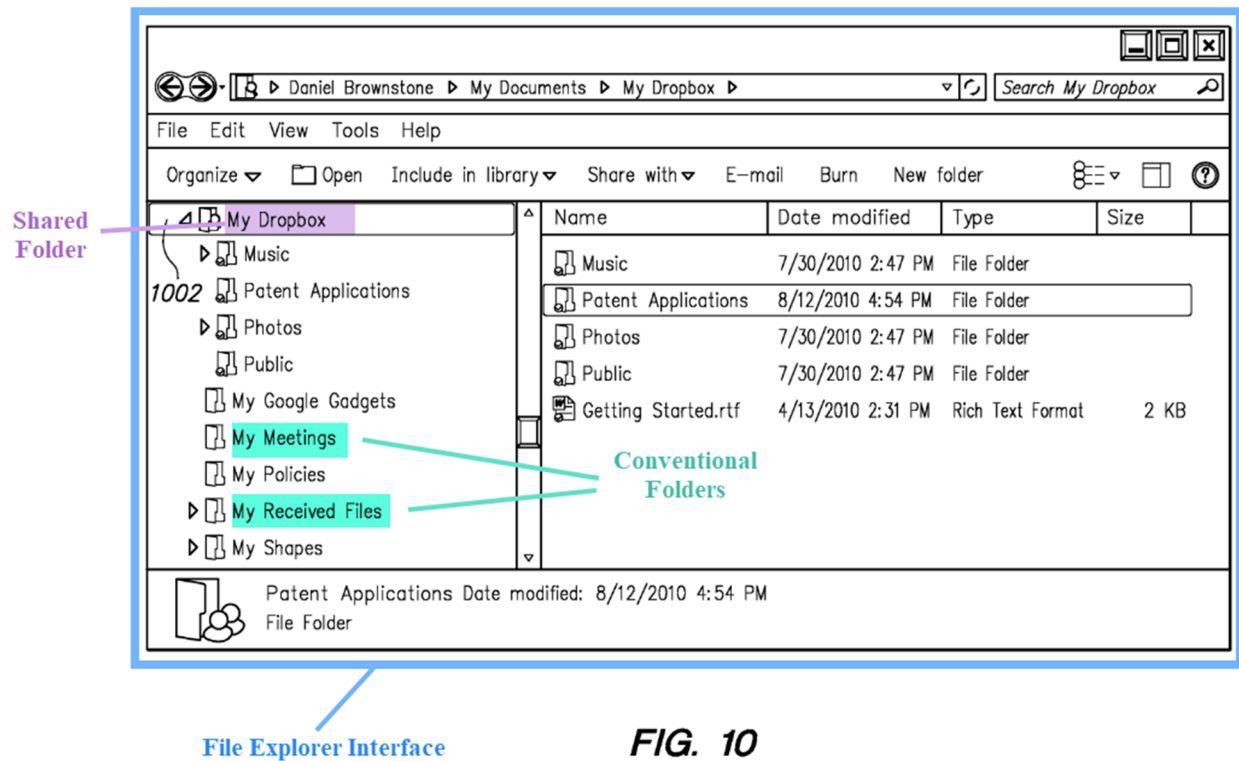


**FIG. 10**

(*Id.*, FIG. 10 (annotated).)

Additionally, as discussed below with respect to claim element 1.o, Houston describes the various modules of client 108 (*e.g.*, downloaded code illustrated in Figure 5) that rely on received metadata to synchronize folders. (*Id.*, 3:55-4:51, FIGs. 5-8.)

## **(2) The Combination of Houston and Garcia Discloses this Feature**

To the extent PO argues that Houston does not disclose this feature, it would have been obvious based on the combination of Houston and Garcia. (EX1002 ¶¶146-147.) For example, as discussed in Section IX.A.1, Garcia discloses the use of a “virtual drive” that allows remote folders to be viewed and accessed using a file

system representation provided to the user's local client device, which also discloses the claimed feature. (EX1006, 2:37-41, 2:66-3:3, 4:53-5:3 (“The virtual drive provides a file system representation, on the user's local client device, of all objects, across a plurality of clients including the local client, which a user has synchronized or otherwise saved to the synchronization system.”), 5:4-13, 5:27-35, 6:5-27, 10:52-11:10, claim 4, FIGs. 10, 20a; EX1002 ¶¶52, 146.) And, as discussed in Section IX.A.1, based on such teachings, a POSITA would have found it obvious to modify Houston such that code received on client 108b (*e.g.*, downloaded code illustrated in Figure 5) causes a representation of a shared virtual folder in a location among one or more other virtual and/or local folders, similar to as described in Garcia. A POSITA would have recognized the benefits (*e.g.*, enabling greater control and file management) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (EX1002 ¶¶63-68, 147; Section IX.A.1.)

**o) [1o]**

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶149-158.) For example, as discussed in Section IX.A.2.n, Houston alone and in combination with Garcia discloses a “file explorer interface of the client-based file explorer application.” (*Id.*) Additionally, Houston discloses that client 108b (“second node”) includes storage containing downloaded computer programs that interface with the operating system's file explorer application and enable a user to

add a copy of the shared folder to a location on the local file system of client 108b so that the folder may be viewed (“cause creation of a second representation of the at least one folder, in a location among one or more folders, that is stored at the second node”) via client 108b’s file explorer user interface (“displayable via file explorer interface of the client-based file explorer application”). (EX1005, 1:53-2:18, 2:57-3:4, 3:18-20, 3:25-34 (“Client 108 enables a user to create, modify and delete files on the client’s local file system, and for those actions to be synchronized with versions of the same files on host system 110 and on one or more other client computers.”), 3:55-59, 5:42-44, 8:64-9:4; EX1002 ¶150.)

Houston also explains that “[c]lient 108 enables a user to create, modify and delete files on the client’s local file system, and for those actions to be synchronized with versions of the same files on host system 110 and on one or more other client computers.” (EX1005, 3:25-28; *id.*, 2:1-2; 5:36-6:8.) Further, as shown in Figure 10 below, Houston discloses “allowing users of system 100 to interact seamlessly with shared folders through their operating system’s standard user interface.” (*Id.*, 7:19-21.) For example, the “My Dropbox” folder 1002 shown in Figure 10 is a created and shared folder that “is displayed next to other conventional folders such as ‘My Meetings’, ‘My Received Files,’ and others.” (*Id.*, 7:30-31.)

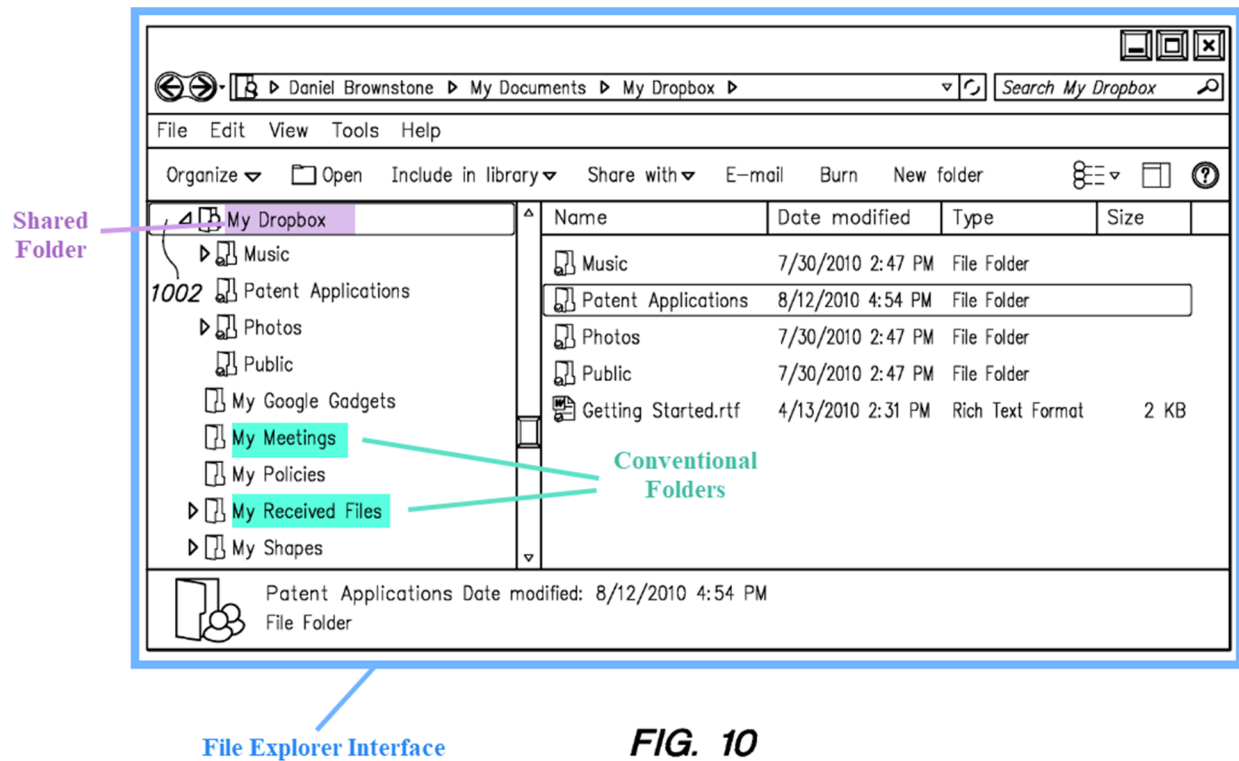
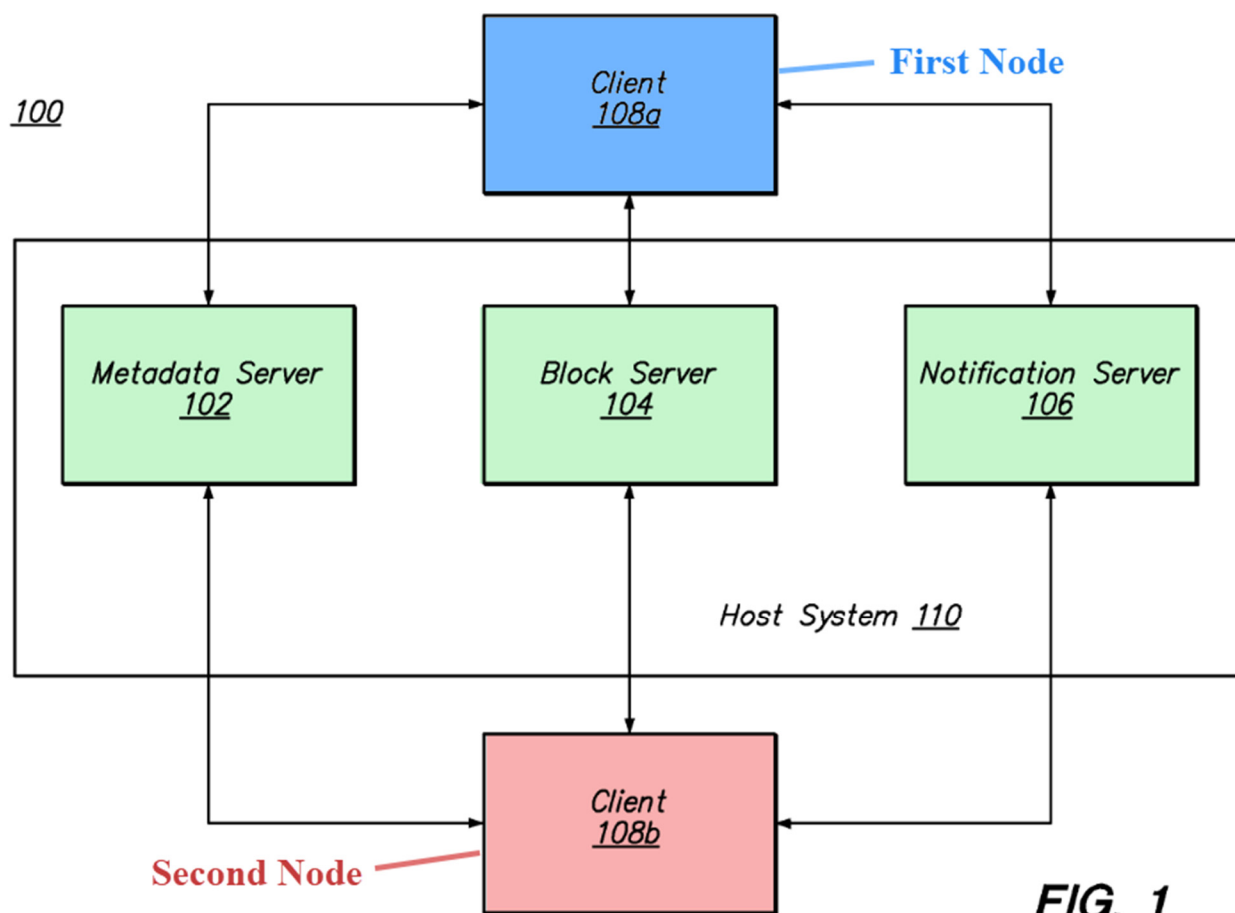


**FIG. 10**

(*Id.*, FIG. 10 (annotated).)

As shown in Figure 1 below, Houston further discloses using host system 110 to synchronize a folder shared among multiple clients. (*Id.*, Abstract, 1:53-54, 3:22-24.) The host system 110 of Figure 1 serves the purpose of “maintaining synchronized shared folders” accessed by multiple clients by way of “a metadata server 102; a block server 104; and a notification server 106.” (*Id.*, 2:56-3:46; *id.*, FIG. 5.) For example, a user may instantiate a folder, which is then synchronized to host system 110, and shared among other clients, after which host system 110 keeps the folder synchronized between the clients as they make changes to the folder or its contents. (*Id.*, Abstract, 1:53-2:2, 3:5-11, 3:25-28 (“Client 108 enables a user to

create, modify and delete files on the client's local file system, and for those actions to be synchronized with versions of the same files on host system 110 and on one or more other client computers.”), 3:64-4:2, 4:60-64, 5:42-45, 6:3-4, 6:20-22, 6:38-40, 8:16-18.) “In this way, each client participating in the share has a current version of the folder and its contents.” (*Id.*, Abstract.)



(*Id.*, FIG. 1 (annotated).)

As illustrated by Figures 7 and 8 below, a synchronized folder/file comprises a group of blocks that collectively identify a particular version of the folder/file, and when a change is made, file events engine 514 informs synchronization (“sync”)

engine 504, which in turn informs hash engine 506. (*Id.*, 4:4-11, 4:14-17, 4:55-66.) Hash engine 506 then creates metadata that includes information describing various attributes of the change and associates it with the version of the folder/file it describes (“second metadata corresponding to the at least one folder that is stored at the second node”). (*Id.*, 4:17-21 (“[H]ash engine 506 [] creates metadata 708 related to the changed file, including its path, modification time, size, whether it is a directory, and file attributes including, for example, permission settings.”), 4:46-51, 5:1-2; EX1002 ¶¶151-153.) The metadata is then used by the various code modules of client 108 and host system 110 to ensure that all of the changes made to the shared folder/file in the version stored at client 108 are included in the version stored at host system 110 (“synchronized, utilizing the code”). (EX1005, 2:63-65, 4:23-43; EX1002 ¶¶151-153.)

Specifically, the metadata is communicated to other modules of client 108 before being sent to metadata server 102, which, as shown in Figure 1 above, is a component of host system 110, which also stores a version of the shared folder/file. (EX1005, 4:21-26, 5:42-45.) Metadata server 102 then compares the changed version of the shared folder/file from client 108 to the version stored at host system 110 and, if it determines that there is a mismatch, requests the missing blocks from client 108. (*Id.*, 5:2-13.) Once the blocks are received and incorporated into the version of the folder/file stored at host system 110, metadata server 102 compares

the versions again, recognizes that the blocks match the information contained in the metadata, and accepts and stores a record of the metadata, such that the metadata now reflects the version of the folder/file stored at host system 110 (“first metadata corresponding to the least one folder that is stored at the at least one server”). (*Id.*, 5:28-35; EX1002 ¶154.)

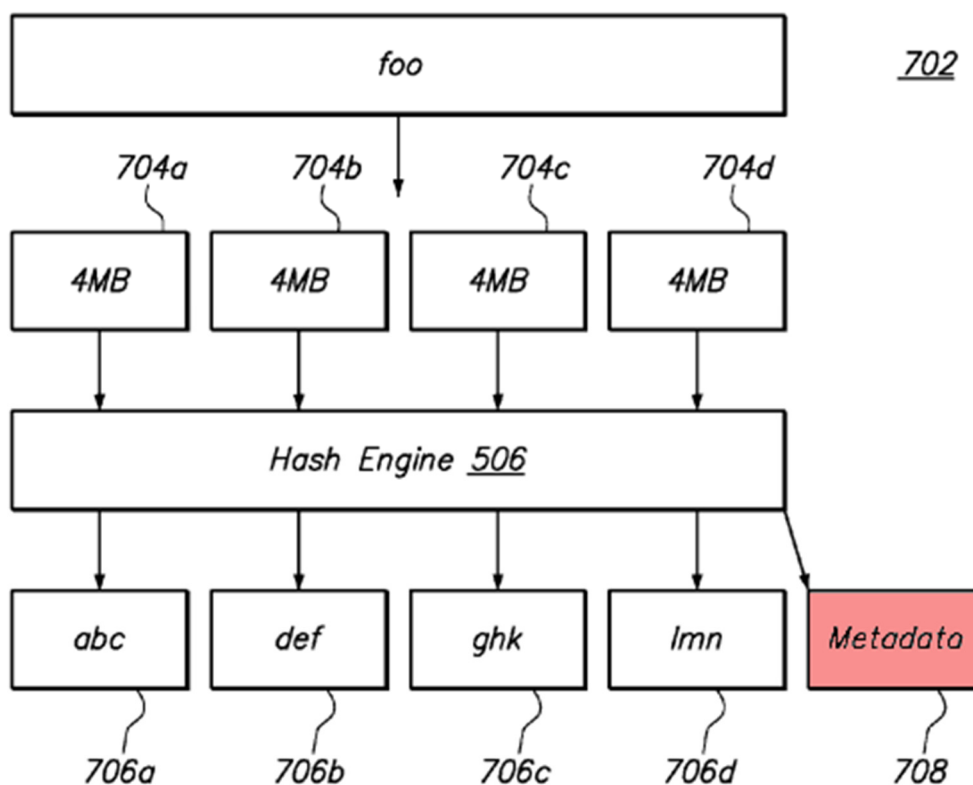


**FIG. 7**

(EX1005, FIG. 7 (annotated).)

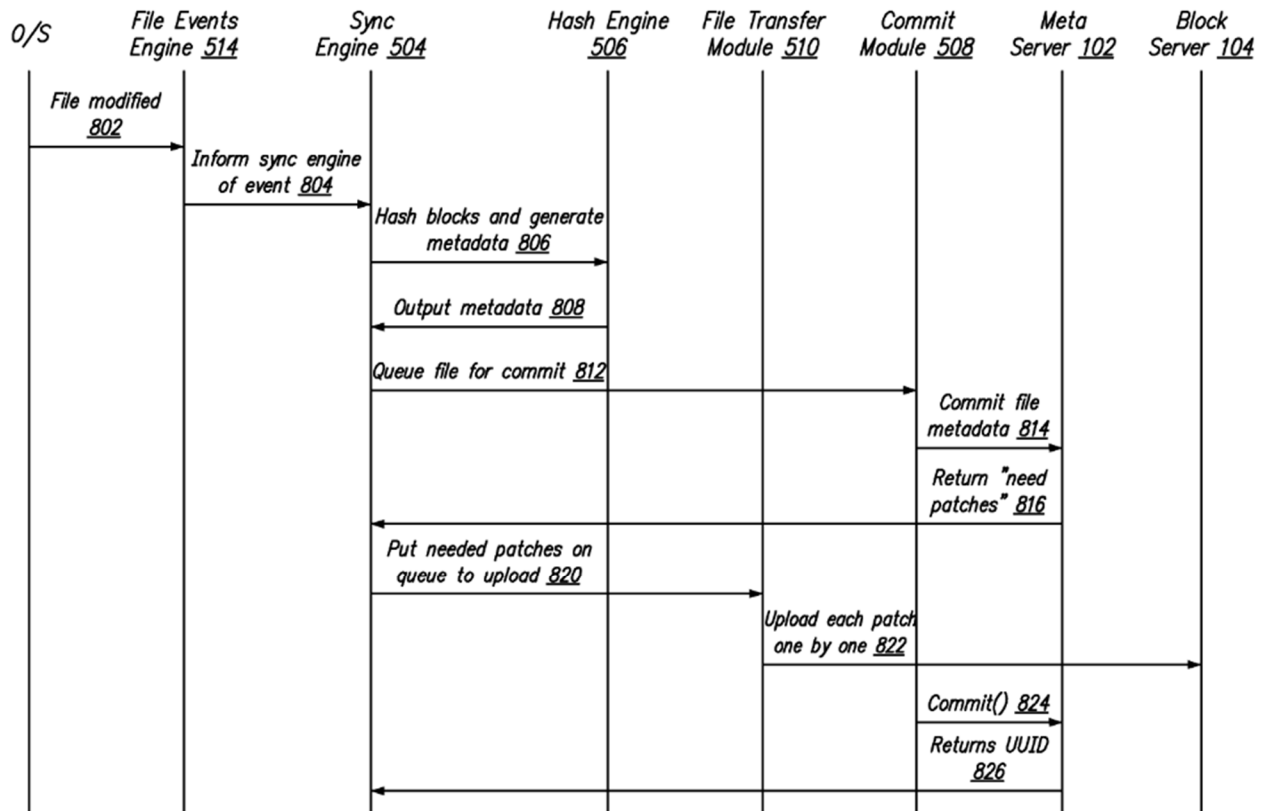


**FIG. 8**

(*Id.*, FIG. 8.)

It would have been obvious to a POSITA to combine the above teachings of Houston and Garcia such that a display of shared folders is provided via a client's file explorer interface and corresponding metadata at the server is synchronized with corresponding metadata at the client using code downloaded to the client (*e.g.*, Figure 5 modules), similar to as described in Houston. (EX1002 ¶¶155-157.) Indeed, like Houston, Garcia also describes the use of metadata for folder synchronization. (EX1006, 5:14-26 ("Each of the synchronization clients stores metadata with information on all folders shared with or by the user and all folders that the user has

backed up or synced to the synchronization server (including the contents of the folder). The synchronization client on the client device uses this metadata to generate the virtual drive and the user interface.”) A POSITA would have recognized that, in the combined system, incorporating the use of such synchronized metadata (similar to as described in Houston) would have ensured that information relating to shared folders, as viewed by users of client-based file explorer applications, remains up to date and accurate. (EX1002 ¶¶63-68, 156.) As a result, the combination would have improved the user experience, as it would have avoided the possibility of users viewing stale or disorganized information relating to folders stored on the server, a problem recognized by Houston. (EX1005, 1:42-45 (“[W]here multiple iterations are involved, it is not difficult to end up with multiple versions of the same document, perhaps having the same or a similar file name, located in various places on a user's hard drive.”); EX1002 ¶¶63-68, 157.) The user would therefore be able to view such folders via both a client-based file explorer application and a web interface, whatever the need and/or user’s preference may be, and be sure that the same information would be displayed. (EX1002 ¶¶63-68, 157.)

**p) [1p]**

The combination of Houston and Garcia discloses this feature. (EX1002 ¶159.) As discussed in Section IX.A.2.o, the combination of Houston and Garcia discloses that a shared folder may be created and stored on the local file system of a

client of a user with whom the folder is shared. The combination of Houston and Garcia also discloses that such a shared folder is made visible (“cause display...of the second representation of the at least one folder that is stored at the second node”) through the standard user interface of the local file system (“via the file explorer interface of the client-based file explorer application”) of the client of a user with whom the folder is shared, as discussed in Section IX.A.2.o. (*Id.* ¶¶52, 59-668, 159.)

### 3. Claim 13

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶160-165.) Claim element 13.a recites “at the second node” and “the file explorer interface of the client-based file explorer application,” which are features that are substantially the same as those recited in claim elements 1.f and 1.o, respectively. Thus, the combination of Houston and Garcia discloses those features for at least the same reasons as discussed with respect to claim elements 1.f and 1.o (*Id.* ¶160.)

As explained below, Houston further discloses file events engine 514 receiving a notification indicating a modification has occurred to a file within a synchronized folder (“detecting a change to first contents of the at least one folder”) located on client 108b’s web based file explorer interface (“associated with the first representation”), causing the modification to be synchronized across all versions of the file located at various clients, including client 108b’s local file explorer interface (“file explorer interface of the client-based file explorer application”), such that

when client 108b views (“in response to an access thereto”) the synchronized folder on the local file explorer interface containing the modified file, the interface displays updated “Date modified” content of the folder (“second contents of the at least one folder associated with the second representation is displayed to be changed”). (*Id.* ¶161.)

For example, as shown in Figures 8 and 20c below, Houston describes the process of synchronizing a modified file. (EX1005, FIG. 8; 4:53-55.) Houston discloses that when a modification is made, for example, to a file within a synchronized folder, client 108’s file events engine 514 of client 108 is notified. (“at the second node: detecting a change to first contents of the at least one folder associated with the first representation”). (*Id.*, 3:49-52, 5:55-57 (“File events engine 514 receives 802 a notification from the operating system indicating that a change has occurred to the synchronized folder.”); EX1002 ¶162.) Through a series of interactions between client 108 and the host system, client 108a ultimately obtains an updated version of the file. (EX1005, FIG. 8; 4:53-5:35 (“Metadata server 102 returns 826 to commit module 508 a unique ID (UUID) associated with the version of the file 702 specified by the metadata 708.”); claim 1 (receiving a request from the second client system for the modification to the first file; and sending, by the host system, a difference between the blocks in the updated block list and the first

block list.”).) The updated version of the file may include receiving new file metadata like, for example, a new “modification time.” (*Id.*, 5:5-11.)

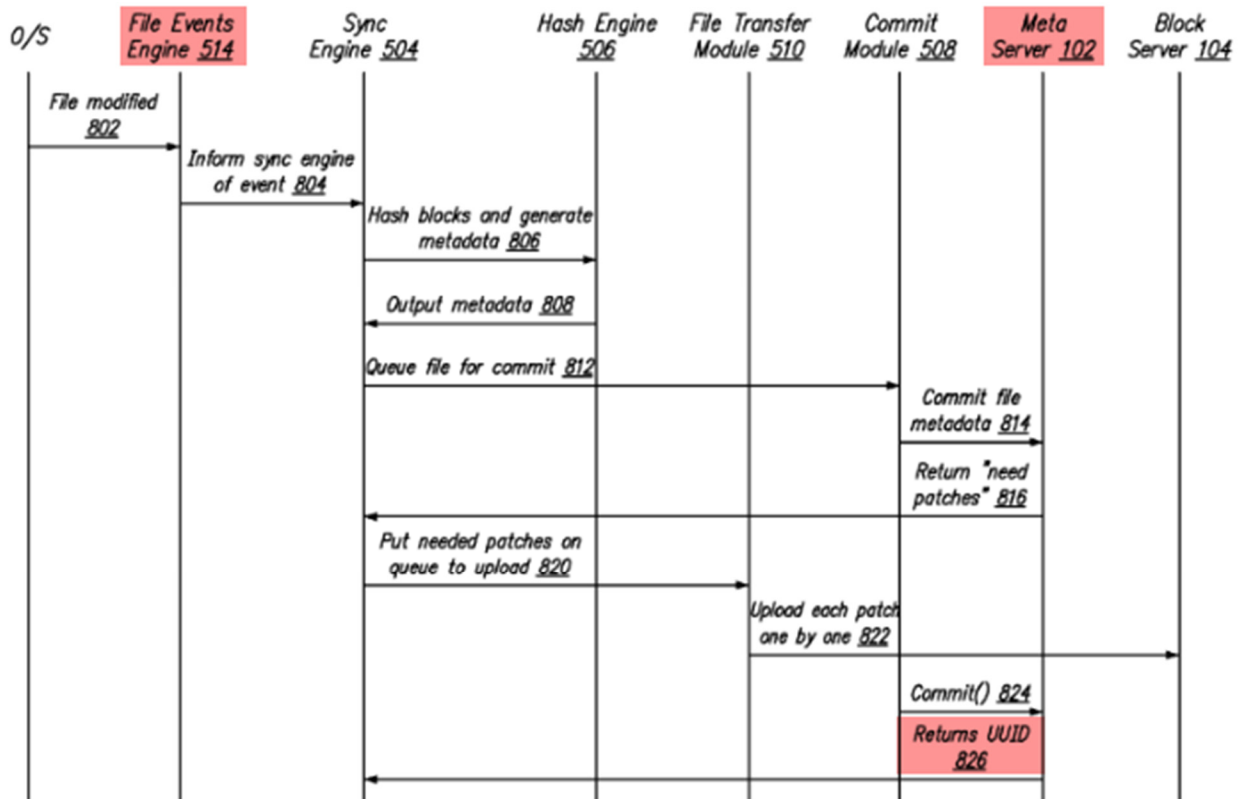
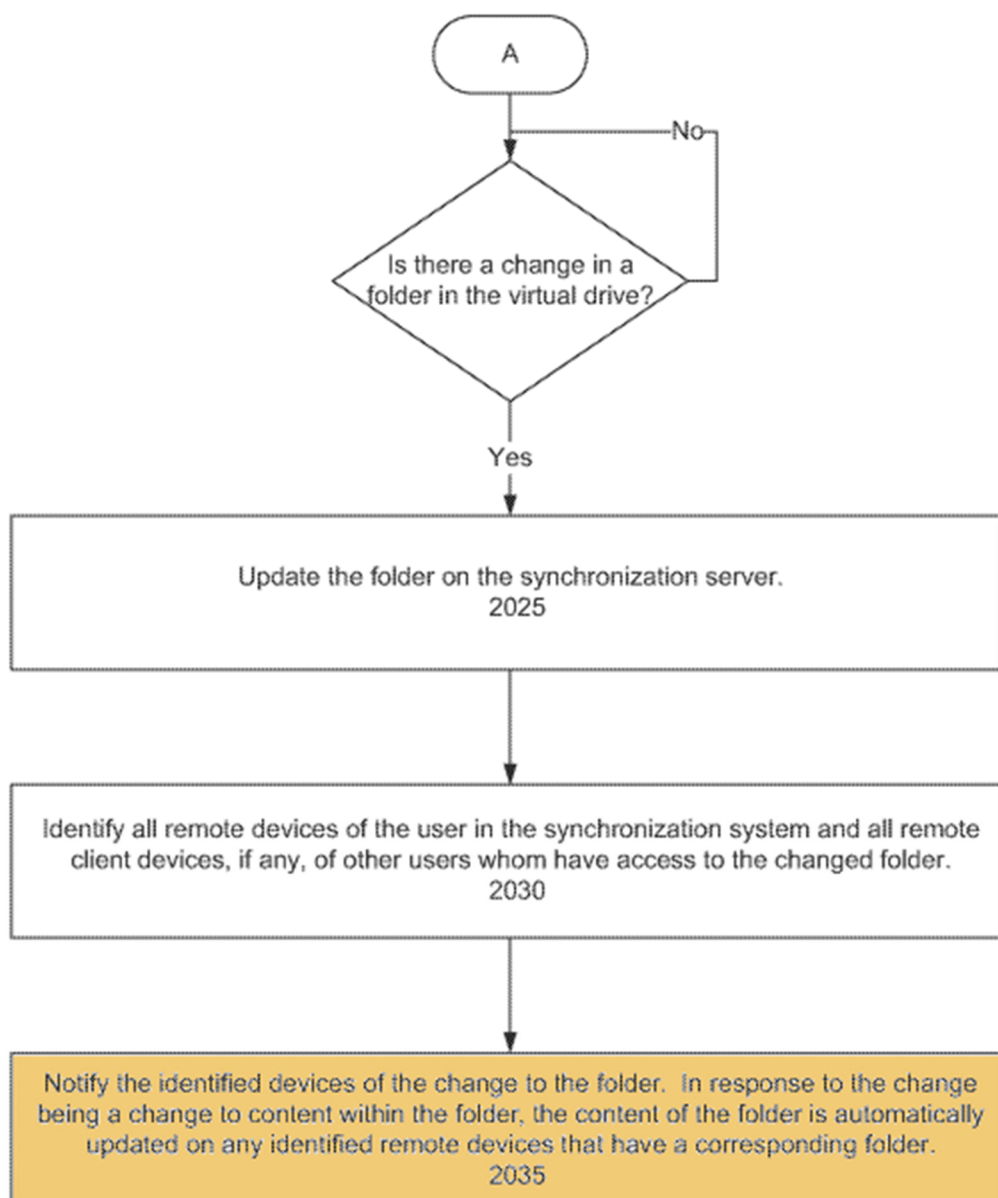


**FIG. 8**

(*Id.*, FIG. 8. (annotated).)



(*Id.*, at FIG. 20c (annotated).)

As shown below, Figure 10 shows a local file explorer interface (“via the file explorer interface of the client-based file explorer application”) displaying shared folders and files, each having a “Date modified” interface element listing the last date and time the folder or file was modified (“based on the change, second contents

of the at least one folder associated with the second representation is displayed to be changed via the file explorer interface of the client-based file explorer application, in response to an access thereto”). (*Id.*, FIG. 10; EX1002 ¶ 163.)

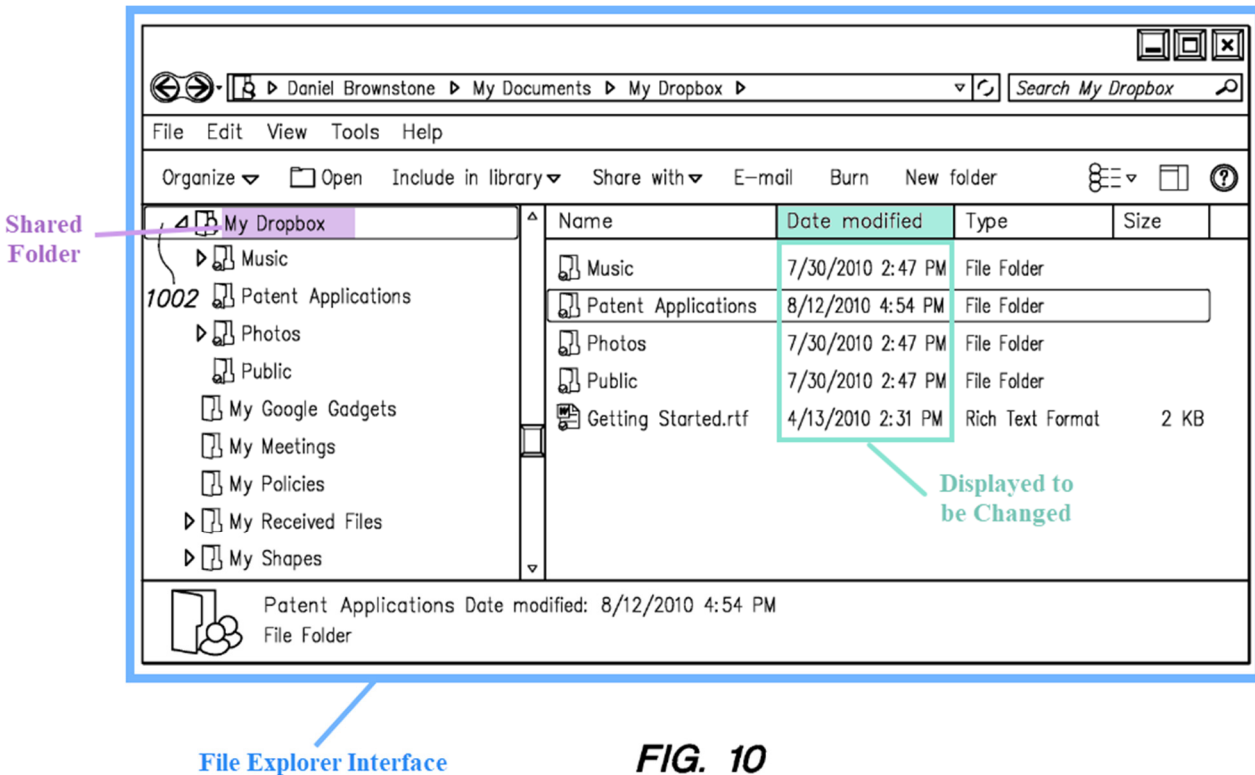


**FIG. 10**

(*Id.* at FIG. 10 (annotated).)

Thus, based on these teachings, the combination would have included such features, as described in Houston, except that the shared folder would have been a virtual folder, as described in Garcia and discussed for claim elements 1.f and 1.n. (Sections IX.A.2.f, n; EX1002 ¶¶52, 63-68, 164.) For example, similar to Houston, in the combination, a change to first content in a virtual folder would result in second content displayed to be changed (*e.g.*, “Date modified” content) via the file explorer

interface, which would have beneficially kept the user informed of useful information relating to shared folders/files. (EX1002 ¶¶63-68, 164.)

#### **4. Claim 14**

Houston alone and in combination with Garcia discloses this claim element (EX1002 ¶¶166-169.)

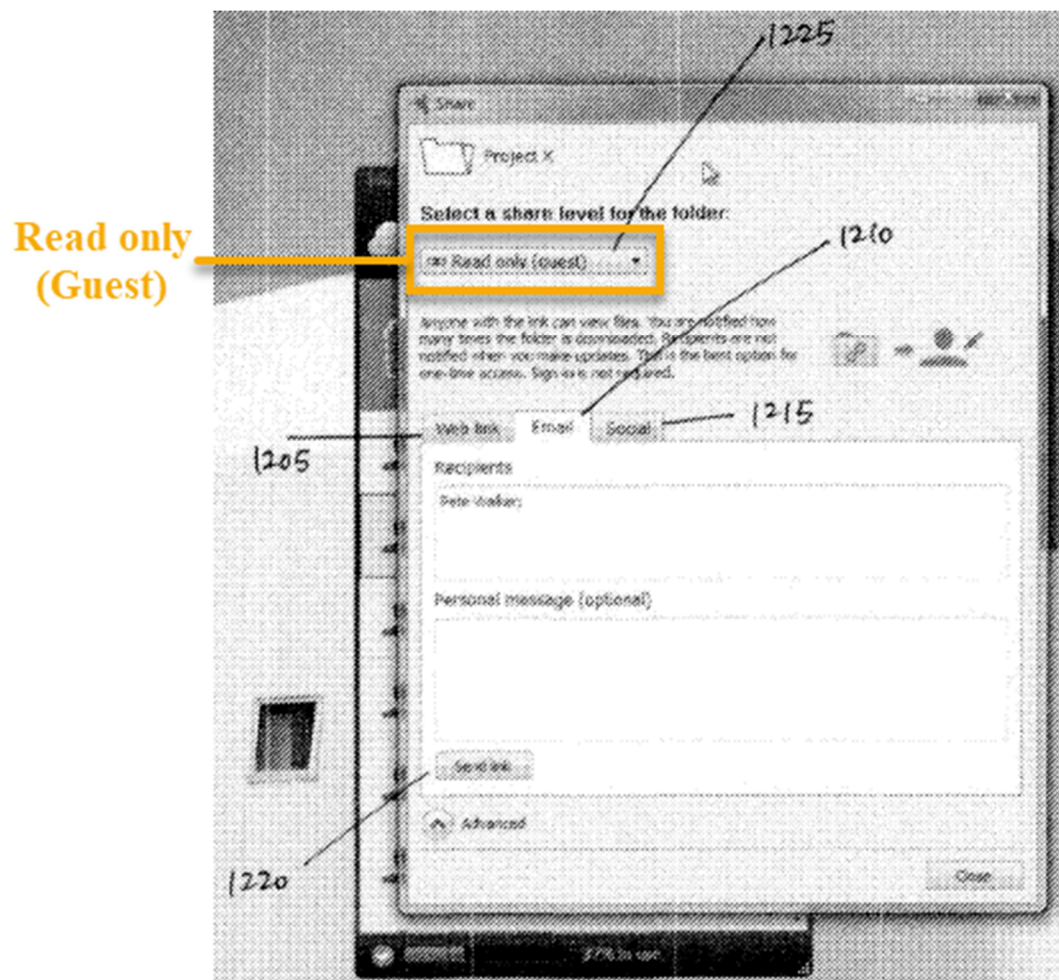
##### **(1) Houston Discloses this Feature**

Houston discloses that “hash engine 506 also creates metadata 708 related to the changed file, including its path, modification time, size, whether it is a directory, and file attributes including, for example, *permission settings*.” (EX1005, 4:17-21.) A POSITA would have understood that configuring user permission settings would have included designating a file as “read-only.” (EX1002 ¶166.) Thus, Houston discloses configuring a folder’s contents as read-only, or, at a minimum, renders it obvious, as such user permissions were well known and widely used by POSITAs to secure sensitive data. (*Id.*)

##### **(2) The Combination of Houston and Garcia Discloses this Feature**

To the extent PO argues that Houston does not disclose this feature, it would have been obvious based on the combination of Houston and Garcia. (EX1002 ¶¶167-168.) As shown in Figure 12 below, Garcia discloses enabling a user to change the sharing level of a folder recipient to “Read only (Guest)” (“the access to

the first contents is capable of being configured to be read-only”). (EX1006, FIG. 12; *id.*, 6:31-35, 11:31-33; EX1002 ¶¶167.)



(EX1006, FIG. 12 (annotated).)

Based on such teachings, a POSITA would have found it obvious to modify Houston such that a user could change the permission setting of a folder or file for a user to be read-only, similar to as described in Garcia. (EX1002 ¶¶63-68, 168.) Such a POSITA would have recognized the benefits (*e.g.*, restricting access rights to certain folders with sensitive content and information relating to such folders) and

had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.*; Section IX.A.1.)

**5. Claim 15**

Houston alone and in combination with Garcia discloses this feature for at least the same reasons as discussed for claim element 14.a. (EX1002 ¶170.) As discussed for claim 14, Houston alone and in combination with Garcia discloses setting user permissions, which a POSITA would have understood apply regardless of the representation. (*Id.*)

**6. Claim 19<sup>9</sup>**

**a) [19a]**

Houston discloses this feature. (EX1002 ¶¶171-175.) Houston discloses “the information associated with the at least one folder is capable of being collected utilizing the first user interface element” for at least the same reasons as discussed for claim element 1.c. (*Id.*)

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<sup>9</sup> Petitioner reserves the right to argue that claim 19 is indefinite in district court. Petitioner’s analysis of claim 19 is based on PO’s infringement positions in district court.

As shown below in Figure 3, and as discussed for claim element 1.c, Houston further discloses UI windows containing a “Next” UI element (“a first single user input”) that confirms selection of an existing folder to share. (EX1002 ¶172.)

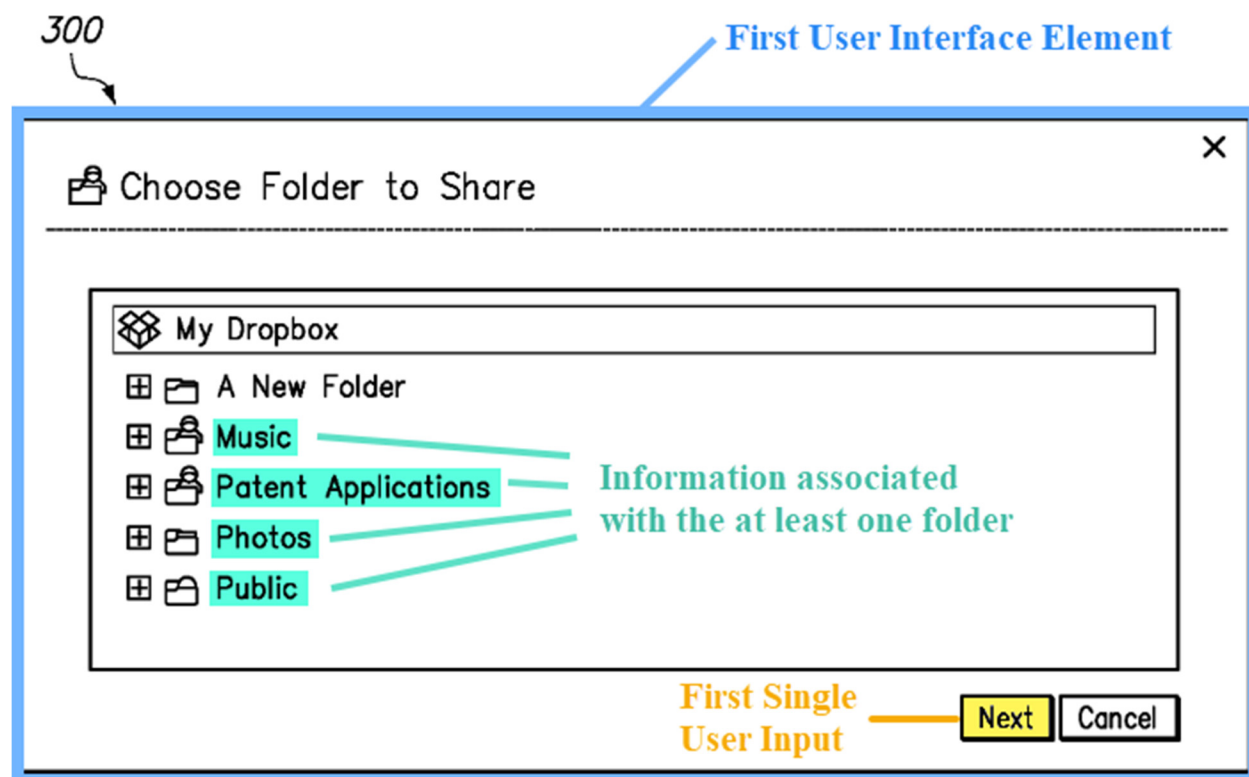


**FIG. 3**

(EX1005, FIG. 3 (annotated).)

Similarly, as shown below, Figures 10 and 11 respectively show a file explorer UI window with selectable folders, a “Share with” dropdown menu (Figure 10) (“a first single user input”), and a context menu UI window (Figure 11) with a “Share This Folder” user interface element 1102 (“a first single user input”) that appears when a user right clicks on one of the displayed folders:

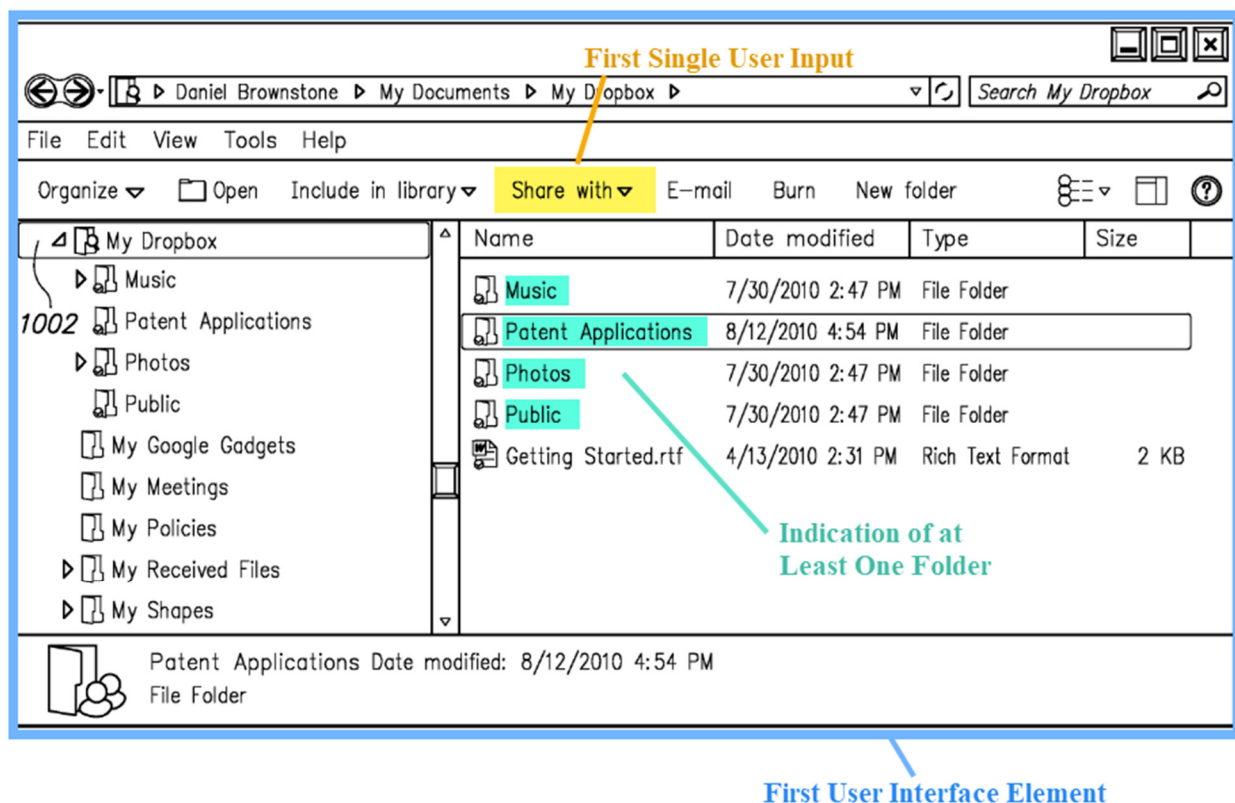


**FIG. 10**

(*Id.*, FIG. 10 (annotated); EX1002 ¶173.)

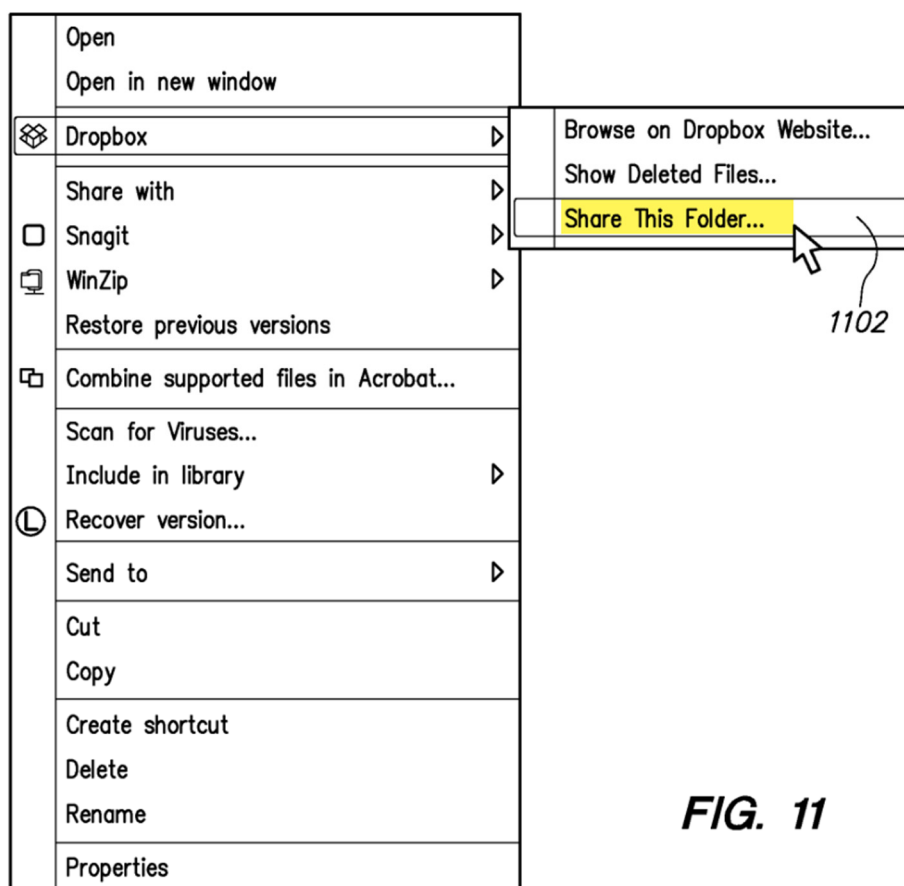


**FIG. 11**

(EX1005, FIG. 11 (annotated).)

Houston discloses that the context menu in Figure 11 can be used to initiate sharing of a folder. (*Id.*, 7:18-40 (“a user can indicate this through a user interface command, such as by right-clicking on the folder name and selecting a ‘Share This Folder . . .’ option 1102”).) A POSITA would have understood based on Houston’s disclosure that the “Share with” dropdown menu in Figure 10 provides the same functionality for selected folders. (EX1002 ¶174.)

**b) [19b]**

Houston discloses this feature. (EX1002 ¶¶176-179.) Houston discloses “the first single user input” and “the at least one object associated with the at least one email address is capable of being collected utilizing the second user interface element” for at least the same reasons as discussed with respect to claim elements 19.a and 1.d. (EX1002 ¶176.) Additionally, a user performing a first input (*e.g.*, selecting “Next” in Figure 2) (Section IX.A.6.a.) results in display of a new user interface window with a display window containing a text box (“the second user interface element”) for inputting account identifiers next (“immediately follows the first single user input”). (EX1002 ¶177.)

As shown below in Figure 4, and as similarly disclosed with respect to Figures 10 and 11, Houston discloses a user interface window appearing as a result of the first user input (“immediately follows the first single user input”) containing a text box (“the second user interface element”) for inputting a text string containing one or more account identifiers, such as email addresses (“a second single user input”). (EX1005, FIGS. 4, 10, 11; Section IX.A.2.d; EX1002 ¶178.)

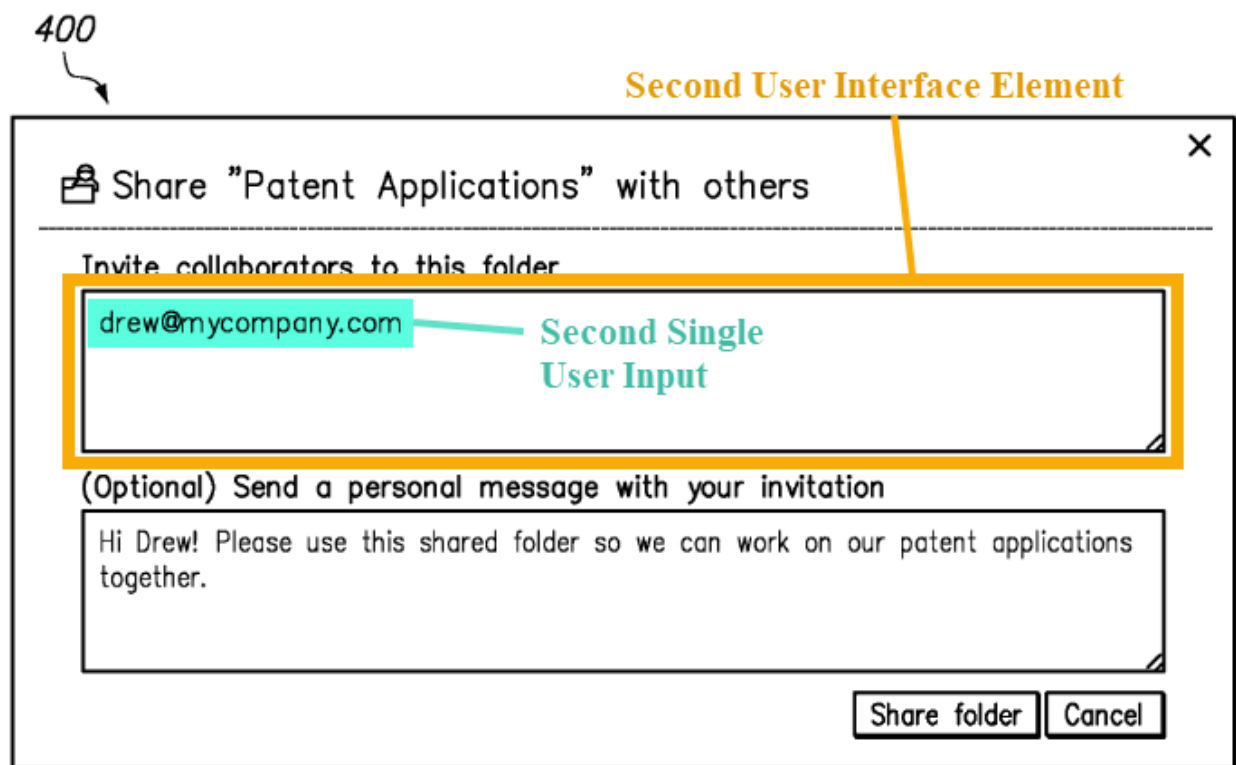


**FIG. 4**

(EX1005, FIG. 4 (annotated).)

**c) [19c]**

Houston discloses this feature. (EX1002 ¶¶180-182.) Houston discloses “the second single user input” and “the selection is capable of being detected utilizing the third user interface element” for at least the same reasons as discussed with respect to claim elements 19.b and 1.e. (*Id.* ¶180.) After a user inputs an account identifier (*e.g.*, an email address) (“immediately follows the second single user input”), the user may then select (“a third single user input”) one of the UI buttons discussed with respect to claim element 1.e (*e.g.*, “Share folder” button in Figure 4) (“a third

user interface element”) to share the selected folder with the selected recipient. (*Id.* ¶181.)

## 7. Claim 20

Houston discloses this feature for the same reasons discussed with respect to claim elements 1.c and 1.n-p. (EX1002 ¶¶183-184.) For example, Houston discloses that shared folders may be accessed using the local file system of client 108 via its operating system in a conventional manner. (EX1005, 2:10-12, 3:18-46, 3:43-45, 7:19-21, 7:37-40.)

## 8. Claim 50

The combination of Houston and Garcia discloses this feature. (EX1002 ¶¶185-188.) Houston discloses “second representation of the at least one folder” and “in response to on the detection of the indication that the HTTP link of the at least one email has been selected” for at least the same reasons as discussed in claim elements 1.o and 1.l. (*Id.* ¶185.)

As for the remaining feature, as discussed for claim elements 1.n and 1.o, Houston discloses, after accepting an invitation to share a folder, creating a representation of the shared folder on a client’s local file explorer interface (“second representation”). (*Id.* ¶186.) As discussed with respect to claim elements 1.f and 1.h, in the combination of Houston and Garcia, folders are shared via emails containing an HTTP link, similar to as described in Garcia. (EX1006, 11:29-31 (“When the

contact clicks on the link to folder 1115, the contents of the folder are shared with the contact.”), 4:60-67, 5:20-26; EX1002 ¶186.)

As further discussed in Section IX.A.1, it would have been obvious to a POSITA, based on the teachings of Houston and Garcia, to modify Houston’s system such that the HTTP link, when selected, causes the folder to be automatically presented in a location in the local file system of client 108b client’s local file explorer interface. (EX1002 ¶¶59, 63-68, 187.) A POSITA would have recognized the benefits (*e.g.*, to easily synchronize folders shared across multiple clients and make said folders easily accessible) and had a reasonable expectation of success combining these teachings of Houston and Garcia. (*Id.* ¶¶63-68, 187; Section IX.A.1.)

## **9. Claim 51**

### **a) [51a-b]**

To the extent the preamble of claim 1 is limiting, the combination of Houston and Garcia discloses these features. (EX1002 ¶¶189-190.) For example, Houston discloses an “apparatus,” which “may comprise a general-purpose computer selectively activated or reconfigured by a computer program,” where the computer program “may be stored on a non-transitory computer readable storage medium....” (EX1005, 9:5-18; *id.*, claim 5.) Houston further discloses that its computers “may

include a single processor or may be architectures employing multiple processor designs.” (*Id.*, 9:18-21.)

Additionally, Houston discloses “a host system 110 and clients 108a, 108b.” (EX1005, 2:60; *id.*, Abstract, 3:12-24, 5:42-51.) Client 108a constitutes “a first node.” (Section IX.A.2.b; EX1002 ¶189.)

**b) [51c]**

Houston discloses this feature for at least the same reasons discussed for claim element 1.b. (EX1002 ¶191.)

**c) [51d]**

Houston discloses this feature for at least the same reasons discussed for claim element 1.c. (EX1002 ¶192.)

**d) [51e]**

Houston discloses this feature for at least the same reasons discussed for claim element 1.d. (EX1002 ¶193.)

**e) [51f]**

Houston discloses this feature for at least the same reasons discussed for claim element 1.e. (EX1002 ¶194.)

**f) [51g]**

Houston discloses this feature for at least the same reasons discussed for claim elements 1.f (discussing “a second node”) and 51.a (discussing “instructions stored”

on the non-transitory computer readable medium for, when utilized by one or more processors”). (EX1002 ¶195.)

**g) [51h]**

The combination of Houston and Garcia discloses this feature for at least the same reasons discussed for claim element 1.f. (EX1002 ¶196.)

**h) [51i]**

The combination of Houston and Garcia discloses this feature for at least the same reasons discussed for claim element 1.g. (EX1002 ¶197.)

**i) [51j]**

The combination of Houston and Garcia discloses this feature for at least the same reasons discussed for claim element 1.h. (EX1002 ¶198.)

**j) [51k]**

The combination of Houston and Garcia discloses this feature for at least the same reasons discussed for claim element 1.i. (EX1002 ¶199.)

**k) [51l]**

The combination of Houston, Garcia, and Wu discloses this feature for at least the same reasons discussed for claim element 1.j. (EX1002 ¶200.)

**l) [51m]**

The combination of Houston and Garcia discloses this feature for at least the same reasons discussed for claim element 1.k. (EX1002 ¶201.)

**m) [51n]**

The combination of Houston and Garcia discloses this feature for at least the same reasons discussed for claim element 1.l. (EX1002 ¶202.)

**n) [51o]**

Houston alone and in combination with Garcia discloses this feature for at least the same reasons discussed for claim element 1.m. (EX1002 ¶203.)

**o) [51p]**

Houston alone and in combination with Garcia discloses this feature for at least the same reasons discussed for claim element 1.n. (EX1002 ¶204.)

**p) [51q]**

Houston discloses this feature for at least the same reasons discussed for claim element 1.o. (EX1002 ¶205.)

**q) [51r]**

Houston discloses this feature for at least the same reasons discussed for claim element 1.p. (EX1002 ¶206.)

**X. DISCRETIONARY DENIAL IS NOT APPROPRIATE**

The '215 patent is not at issue in any other Board proceeding and the *General Plastic* factors concerning discretionary denial are not applicable. *See General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper No. 19 at 3, 8, 15-19 (Sept. 6, 2017). Nor should this Petition be denied under 35 U.S.C.

§ 325(d). Garcia and Wu were not considered during prosecution of the '215 patent. (EX1001, Cover (“References Cited”); EX1004.) Houston is cited on the face of the '215 patent, but it was not applied in a rejection, much less considered in combination with Garcia and Wu. (*Id.*)

The six-factor test addressed in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 3 (Mar. 20, 2020) favors institution, particularly in light of the recent guidance provided by the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office, Katherine Vidal, issued on June 21, 2022 (“Guidance”). (EX1010.)

The Guidance provides that the PTAB will not deny institution of an IPR under *Fintiv* when a petition presents compelling evidence of unpatentability. (*Id.*, 9.) “Compelling, meritorious challenges are those in which the evidence, if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence.” (*Id.*, 4.) This petition presents compelling evidence of unpatentability because, as discussed above, the prior art discloses all elements of the challenged claims.

Notwithstanding the compelling evidence of unpatentability, as a whole, the *Fintiv* factors also favor institution.

The **first factor (stay)** is neutral or favors institution, as Google currently intends to file a motion to stay after institution. *See, e.g., Hulu LLC v. SITO Mobile*

*R&D IP, LLC*, IPR2021-00298, Paper 11 at 10-11 (PTAB May 19, 2021); *Google LLC v. Parus Holdings, Inc.*, IPR2020-00847, Paper 9 at 12 (PTAB Oct. 21, 2020).

The **second factor (proximity of trial dates)** is neutral. Trial in the parallel district court case will not begin until September 7, 2023, and the *Markman* hearing will be held no earlier than August 25, 2022. (EX1011.) While the FWD in this IPR is expected in January 2024, less than five months after the scheduled trial date, the Guidance recognizes that “scheduled trial dates are unreliable and often change,” and thus “[a] court’s scheduled trial date...is not by itself a good indicator of whether the district court trial will occur before the statutory deadline for a final written decision.”<sup>10</sup> (EX1010, 8.)

Here, trial may be delayed due to, for example, a pending motion to transfer (EX1012), given Judge Albright’s standing orders require that a *Markman* hearing will not take place until there is a ruling on any pending motion to transfer. (EX1013, 6.) To date, the *Markman* hearing, originally scheduled for March 31, 2022 (EX1014), has already been delayed three times (EX1011, EX1015, EX1016). Trial

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<sup>10</sup> According to the statistics cited in the Guidance (EX1010, 9 n.12), the median time to trial in the Western District of Texas for the year ending March 31, 2022, is 27.2 months (EX1019, 37). The earliest the parallel district court case could go to trial is September 2023, which is already beyond the median time to trial.

may also be delayed because of the staggering number of open cases (1,188) on Judge Albright's docket. (EX1017.) Indeed, Judge Albright's Court has become a congested center for patent litigation. (EX1018, 5-7 (showing the Western District of Texas as the most congested court in the country and that Judge Albright presides over 19% of all patent cases in Q1 2022).)

Even if the trial is not delayed, this factor does not weigh against institution, as PTAB cases analyzing similar schedules have weighted this factor as neutral or, at most, slightly in favor of denial. *See, e.g., Google LLC et al. v. Parus Holdings, Inc.*, IPR2020-00847, Paper 9 at 12 (PTAB Oct. 21, 2020) (trial scheduled for three months before FWD weighs "at best, neutral"); *Apple Inc. v. Koss Corp.*, IPR2021-00305, Paper 14 at 13-14 (PTAB, June 3, 2021) (trial scheduled for two months before FWD weighs "at most, minimally in favor" of denial).

The **third factor (investment in parallel proceedings)** also favors institution. The parties and the district court have not heavily invested in the district court litigation. *Apple Inc. v. Koss Corp.*, IPR2021-00305, Paper 14 at 14-16 (PTAB June 3, 2021). Fact discovery is in its early stages and the *Markman* hearing has not yet occurred. (EX1011.)

The **fourth factor (overlap)** weighs against discretionary denial. Given the early stage of the Google litigation, it is unclear how much overlap, if any, there will be between the two proceedings. For example, while this Petition does not challenge

all claims asserted in the parallel litigation, the asserted claims in the litigation will be significantly narrowed, per Judge Albright’s standing orders, which require multiple meet and confers to discuss “significantly narrowing the number of claims asserted and prior art references at issue.” (EX1013, 13-14.)

For the **fifth factor (parties)**, Petitioner is the defendant in the related litigation. But under the “holistic view of whether the efficiency and integrity of the system are best served,” the factors here indicate that institution is proper. *Samsung Elecs. Co. Ltd. v. Dynamics Inc.*, IPR2020-00505, Paper 11 at 15 (Aug. 12, 2020).

The **sixth factor (other circumstances)** weighs in favor of institution given the substantial similarity between the prior art not considered during prosecution and the ’215 patent. Institution is therefore consistent with the significant public interest against “leaving bad patents enforceable.” *Thryv, Inc. v. Click-To-Call Techs., LP*, 140 S. Ct. 1367, 1374 (2020).

Accordingly, instituting here would enhance the integrity of the patent system, and could save district courts, future parties, and the Board—if a future defendant files an IPR because this one was not considered—significant resources.

## **XI. CONCLUSION**

For the reasons given above, Petitioner requests institution of IPR for the challenged claims based on the specified ground.

Respectfully submitted,

Dated: July 26, 2022

By: /Naveen Modi/  
Naveen Modi (Reg. No. 46,224)  
Counsel for Petitioner

## **XII. APPENDIX A (CLAIM LISTING)<sup>11</sup>**

### Claim 1

[1a] A method, comprising:

[1b] causing, at a first node, display of:

[1c] a first user interface element, utilizing first hypertext markup language-equipped data, for collecting information associated with at least one folder,

[1d] a second user interface element, utilizing second hypertext markup language-equipped data, for collecting at least one object associated with at least one email address, the at least one object associated with at least one email address being the at least one email address or an alias associated with the at least one email address, and

[1e] a third user interface element, utilizing the second hypertext markup language-equipped data, for detecting an indication of a selection thereof to cause an initiation of a sharing of the at least one folder;

[1f] causing, at a second node, receipt of at least one email, based on the information associated with the at least one folder, the at least one object associated

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<sup>11</sup> 37 C.F.R. 42.24(1) (“The word count...does not include...[an] appendix of exhibits or claim listing.”)

with the at least one email address, and the detection of the indication of the selection of the third user interface element to cause the initiation of the sharing of the at least one folder, where the at least one email:

[1g] identifies the information associated with the at least one folder,

[1h] includes an Hypertext Transfer Protocol (HTTP) link,

[1i] does not include a file attachment, for avoiding at least one file from being communicated to and stored at the second node until an initiation of the communication of the at least one file by a user of the second node is detected and the communication commences via at least one server that stores the at least one file,

[1j] is at least partially pre-written, and

[1k] is automatically caused to be received without requiring user involvement after the detection of the indication of the selection of the third user interface element to cause the initiation of the sharing of the at least one folder;

[1l] based on a detection of an indication that the HTTP link of the at least one email has been selected, causing, at the second node, sending, to at least one server, of a signal for causing creation of a first representation of the at least one folder, in a location among one or more folders, that is stored at the at least one server and that is displayable via at least one web page;

[1m] causing, at the second node, receipt of the at least one web page, that results in display, at the second node and via the at least one web page, the first representation of the at least one folder that is stored at the at least one server; and

[1n] causing, at the second node, receipt of code for storage at the second node and cooperation with a file explorer interface of a client-based file explorer application, for being utilized to:

[1o] cause creation of a second representation of the at least one folder, in a location among one or more folders, that is stored at the second node and that is displayable via the file explorer interface of the client-based file explorer application, where first metadata corresponding to the least one folder that is stored at the at least one server is synchronized, utilizing the code, with second metadata corresponding to the at least one folder that is stored at the second node, and

[1p] cause display, via the file explorer interface of the client-based file explorer application, of the second representation of the at least one folder that is stored at the second node.

### Claim 13

[13] The method of claim 1, and further comprising: at the second node: detecting a change to first contents of the at least one folder associated with the first representation, such that, based on the change, second contents of the at least one folder associated with the second representation is displayed to be changed via the

file explorer interface of the client-based file explorer application, in response to an access thereto via the file explorer interface of the client-based file explorer application.

Claim 14

[14] The method of claim 13, wherein the access to the first contents is capable of being configured to be read-only.

Claim 15

[15] The method of claim 13, wherein the access to the second contents is capable of being configured to be read-only.

Claim 19

[19a] The method of claim 1, wherein the information associated with the at least one folder is capable of being collected utilizing the first user interface element in response to a first single user input,

[19b] the at least one object associated with the at least one email address is capable of being collected utilizing the second user interface element in response to a second single user input that immediately follows the first single user input, and

[19c] the selection is capable of being detected utilizing the third user interface element in response to a third single user input that immediately follows the second single user input.

Claim 20

[20] The method of claim 1, wherein the file explorer interface of the client-based file explorer application is displayed via an interface that does not include a web page displayed via a web browser.

Claim 50

[50] The method of claim 1, wherein the second representation of the at least one folder is caused to be created automatically, in response to on the detection of the indication that the HTTP link of the at least one email has been selected.

Claim 51

[51a] A non-transitory computer readable medium comprising:

[51b] first instructions stored on the non-transitory computer readable medium for, when utilized by one or more processors of a first node:

[51c] causing, at the first node, display of:

[51d] a first user interface element, utilizing first hypertext markup language-equipped data, for collecting information associated with at least one folder,

[51e] a second user interface element, utilizing second hypertext markup language-equipped data, for collecting at least one object associated with at least one email address, the at least one object associated with at least one email address being the at least one email address or an alias associated with the at least one email address, and

[51f] a third user interface element, utilizing the second hypertext markup language-equipped data, for detecting an indication of a selection thereof to cause an initiation of a sharing of the at least one folder;

[51g] second instructions stored on the non-transitory computer readable medium for, when utilized by one or more processors of a second node:

[51h] causing, at the second node, receipt of at least one email, based on the information associated with the at least one folder, the at least one object associated with the at least one email address, and the detection of the indication of the selection of the third user interface element to cause the initiation of the sharing of the at least one folder, where the at least one email:

[51i] identifies the information associated with the at least one folder,

[51j] includes an Hypertext Transfer Protocol (HTTP) link,

[51k] does not include a file attachment, for avoiding at least one file from being communicated to and stored at the second node until an initiation of the communication of the at least one file by a user of the second node is detected and the communication commences via at least one server that stores the at least one file,

[51l] is at least partially pre-written, and

[51m] is automatically caused to be received without requiring user involvement after the detection of the indication of the selection of the third user interface element to cause the initiation of the sharing of the at least one folder;

[51n] based on a detection of an indication that the HTTP link of the at least one email has been selected, causing, at the second node, sending, to at least one server, of a signal for causing creation of a first representation of the at least one folder, in a location among one or more folders, that is stored at the at least one server and that is displayable via at least one web page;

[51o] causing, at the second node, receipt of the at least one web page, that results in display, at the second node and via the at least one web page, the first representation of the at least one folder that is stored at the at least one server; and

[51p] causing, at the second node, receipt of code for storage at the second node and cooperation with a file explorer interface of a client-based file explorer application, for being utilized to:

[51q] cause creation of a second representation of the at least one folder, in a location among one or more folders, that is stored at the second node and that is displayable via the file explorer interface of the client-based file explorer application, where first metadata corresponding to the least one folder that is stored at the at least one server is synchronized, utilizing the code, with second metadata corresponding to the at least one folder that is stored at the second node, and

[51r] cause display, via the file explorer interface of the client-based file explorer application, of the second representation of the at least one folder that is stored at the second node.

**CERTIFICATE OF COMPLIANCE**

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 11,044,215 contains, as measured by the word-processing system used to prepare this paper, 13,835 words. This word count does not include the items excluded by 37 C.F.R. § 42.24 as not counting towards the word limit.

Respectfully submitted,

Dated: July 26, 2022

By: /Naveen Modi/  
Naveen Modi (Reg. No. 46,224)  
Counsel for Petitioner

**CERTIFICATE OF SERVICE**

I hereby certify that on July 26, 2022, I caused a true and correct copy of the foregoing Petition for *Inter Partes* Review of U.S. Patent No. 11,044,215 and supporting exhibits to be served via express mail on the Patent Owner at the following correspondence address of record as listed on PAIR:

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