

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DROPBOX, INC.,

Petitioner

v.

MOTION OFFENSE, LLC,

Patent Owner

IPR2024-00286
U.S. Patent No. 11,611,520

PATENT OWNER'S PRELIMINARY RESPONSE

Under 37 C.F.R. § 42.107

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2003	U.S. Patent Application No. 13/624,906
2004	U.S. Patent Application No. 13/626,635
2005	Petition for Inter Partes Review of U.S. Patent No. 10,303,353
2006	Petition for Inter Partes Review of U.S. Patent No. 10,613,737
2007	Petition for Inter Partes Review of U.S. Patent No. 11,044,215
2008	<i>Garcia</i> Assignment to SugarSync, Inc.
2009	<i>Garcia</i> Assignment to Dropbox, Inc.
2010	SugarSync April 2011 User Guide
2011	SugarSync October 2012 User Guide
2012	<i>Dropbox transforms teamwork with new products and business plans</i>
2013	<i>A revolutionary new way to access all your files</i>
2014	<i>Introducing Dropbox Smart Sync and new collaboration tools</i>
2015	<i>Inside Dropbox's Identity Overhaul</i>
2016	Dropbox Company Presentation, February 2022
2017	<i>Testing sync at Dropbox</i>
2018	<i>Going deeper with Project Infinite</i>
2019	<i>Dropbox makes enterprise push with launch of Smart Sync, Paper</i>
2020	<i>Spend less time searching, more time getting work done with Smart Sync</i>
2021	<i>Secure Link Sharing App for Mobile Devices</i>
2022	<i>Rewriting the heart of our sync engine</i>

2023	Dropbox Smart Sync is finally available to all business users
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2025	Dropbox's Smart Sync Makes the Service Even Better
2026	U.S. Provisional Pat. App. No. 61/233,787 (<i>Houston II</i>)
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I. INTRODUCTION

Petitioner has not met its burden and its request for *inter partes* review of claims 17-21¹ of U.S. Patent No. 11,611,520 (“the ’520 patent”, EX1001) should be denied. *First*, the asserted references fail to disclose every limitation of the challenged claims, much less in the manner recited. *Second*, regardless of the foregoing, a POSITA would not have been motivated to combine the references in the manner advanced by Petitioner nor have had any reasonable expectation of success. As explained in more detail below, a POSITA would not have found Petitioner’s hindsight-based combinations of *Houston* with *Garcia*, *Manzano*, and/or *Wu* to have been obvious, much less actually read on the challenged claims. *Third*, significant secondary indicia confirm that the challenged claims were non-obvious at the time of invention.

For at least these reasons, and those set forth below, the Petition should be denied and the claims upheld.

II. APPLICABLE LEGAL PRINCIPLES

“[T]he decision whether to institute an *inter partes* review is discretionary.” *Unified Patents Inc. v. C-Cation Techs., LLC*, IPR2015-01045, Paper 15 at 3 (PTAB Oct. 7, 2015) (citing 37 C.F.R. § 42.108(a)). Petitioner has the burden to

¹ Patent Owner disclaimed claims 1-8 under 35 U.S.C. § 253. (EX2045.) Only challenged claims 17-21 remain.

show that it is likely to prevail as to at least one claim of the '520 patent. 35

U.S.C. § 314; *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2018).

To make a prima facie showing of obviousness under 35 U.S.C. § 103, the Petition must fulfill the requirements set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), including demonstrating that the cited references disclose each element of a challenged claim. *In re Magnum Oil Tools Int'l.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016); *see also Apple Inc. v. Contentguard Holdings, Inc.*, IPR2015-00442, Paper 9 at 12-13 (PTAB July 13, 2015).

Petitioner also has the burden to show there would have been some motivation to combine the asserted prior art, and that the proposed combinations would render the patented claims obvious. *Johns Manville v. Knauf Insulation*, IPR2018-00827, Paper 9 at 13 (PTAB Oct. 16, 2018) (informative).

“Obviousness requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination.” *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) (internal citation omitted); *see also In re Magnum Oil Tools Int'l.*, 829 F.3d at 1376. Nor is it enough to show that the references are in the same field of invention or are compatible. *Johns Manville v. Knauf Insulation*, IPR2018-00827, Paper 9 at 17-20 (PTAB Oct. 16, 2018) (informative). There must be some reason for a POSITA to have been motivated to modify the prior art. *Virtek Vision Int'l*

ULC v. Assembly Guidance Sys., Inc., 97 F.4th 882 (Fed. Cir. 2024) (“It does not suffice to simply be known. A reason for combining must exist.”)

Even if individual modifications or choices were obvious, a petition must explain why making all of the changes at once would be obvious. *Apple Inc. v. Contentguard*, Paper 9 at 16-17 (“[T]he mere fact that individual changes might have been obvious does not make doing all of the changes at once obvious.”); *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1373 (Fed. Cir. 2008) (“[K]nowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references”); *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.”). The lack of a technological obstacle to combining references, in and of itself, does not justify a finding of obviousness. *See In re Omeprazole Patent Litig. v. Apotex Corp.*, 536 F.3d 1361, 1380-81 (Fed. Cir. 2008).

A reason for combining disparate prior art references is critical and should be made explicit. *InTouch Techs., Inc. v. VGo Communs., Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014) (internal citation omitted). A conclusory statement relying on a duplicative expert testimony does not meet a petitioner’s burden. *Johns Manville v. Knauf Insulation*, IPR2018-00827, Paper 9 at 13-14 (PTAB Oct. 16,

2018) (“Petitioner merely makes the assertion that it would have been so, and cites to a largely duplicative paragraph of the Hirsekorn Declaration for support. An unsupported statement that combining the teachings of the two references would have been ‘well within the skill of a POSA,’ because the results of reacting a reducing sugar with an amine reactant ‘were well-known and predictable’ does not meet Petitioner’s burden.”) (informative); *see also id.* at 11; 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

Motivation and expectation of success are generally not present where the proposed modification or combination contradicts a reference’s basic teachings or is inoperable. *In re Urbanski*, 809 F.3d 1237 (Fed. Cir. 2016) (“if references taken in combination would produce a seemingly inoperative device such references teach away from the combination and thus cannot serve as predicates for a prima facie case of obviousness.”) (internal quotations omitted); *Cook Grp. Inc. v. Bos. Sci. Scimed, Inc.*, 809 F. App’x 990, 1001 (Fed. Cir. 2020) (“the Board properly weighed the loss of key functions as a relevant factor in the motivation to combine analysis”); *Plas-Pak Indus. v. Sulzer Mixpac AG*, 600 F. App’x 755, 758 (Fed. Cir. 2015); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *Univ. of Md. Biotechnology Inst. v. Presens Precision Sensing Gmbh*, 711 F. App’x 1007, 1010 (Fed. Cir. 2017).

Hindsight analysis is inappropriate. Obviousness must be measured “*at the time the invention was made.*” *Ortho-McNeil Pharm. v. Mylan Labs*, 520 F.3d 1358, 1364 (Fed. Cir. 2008) (emphasis in original). A petition must demonstrate a rationale to combine prior art references without relying on the patent disclosure itself. *Apple Inc. v. Contentguard*, Paper 9 at 15, 17; *see also P&G v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 995 (Fed. Cir. 2009); *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1327 (Fed. Cir. 2012) (“The expert’s testimony on obviousness was essentially a conclusory statement that a person of ordinary skill in the art would have known, based on the ‘modular’ nature of the claimed components, how to combine any of a number of references to achieve the claimed inventions. This is not sufficient and is fraught with hindsight bias.”). In other words, the Petitioner must not use the patent as a roadmap. *In re NTP, Inc.*, 654 F.3d 1279, 1299 (Fed. Cir. 2011) (internal citation omitted); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

III. BACKGROUND

A. Priority Applications

The ’520 Patent is a continuation of U.S. Pat. Appl. No. 16/803,980 (now U.S. Pat. No. 11,044,215), which is a continuation-in-part (“CIP”) of U.S. Patent Application Nos. 15/984,406 filed May 20, 2018, 15/724,223 filed Oct. 3, 2017, and 14/274,623 filed May 9, 2014, which in turn claims priority to U.S. Patent

Application Nos. 13/624,906 and 13/626,635 (the “’906 application” and “’635 application” respectively, and collectively the “Original Applications”, attached hereto as EXS 2003, 2004). Both Original Applications are incorporated by reference. (EX1001, 1:30-39; *see also* ’635 Application at ¶¶ 3, 34.)

B. Overview of the ’520 Patent

As it pertains to this proceeding, the ’520 patent generally relates to methods and systems for sharing folders via a network without attaching the specific files, folders etc. to a message (referred to as the “Folder Share embodiment”), which was disclosed in the Original Applications. At a high-level, the Folder Share embodiment involves the use of code configured to cooperate with a separate client-based file explorer interface to create a **representation** of at least one folder shared with a recipient within a file explorer interface on the recipient’s computer, such that, among other things, no file within the shared folder is stored on the recipient’s local drive at the outset. Instead, the file(s) is stored on a server and downloaded to the recipient’s local drive only in response to detection of an indication to open or access the file(s) in the folders(s).

To accomplish the above, the ’635 application discloses an apparatus that allows for the sharing of folders and files between a first and second node over a network. (See FIG. 5 of ’635 application, EX2004.) This apparatus comprises at least one non-transitory memory storing instructions and at least one processor that

can execute these instructions. ('635 application, EX2004, at [0037], [0040], [0042], [0053], [0192], [0193].) When the apparatus executes these instructions, it causes, at a first node, the display of a first interface with a first user interface element. ('635 application, EX2004, at [0082], [00122].) An example of this first user interface is seen in FIG. 6D of the '635 application, EX2004, reproduced below, which shows a first user interface (*e.g.*, navigation window 646d) with at least one first user interface element (*e.g.*, folder selection element 652d).

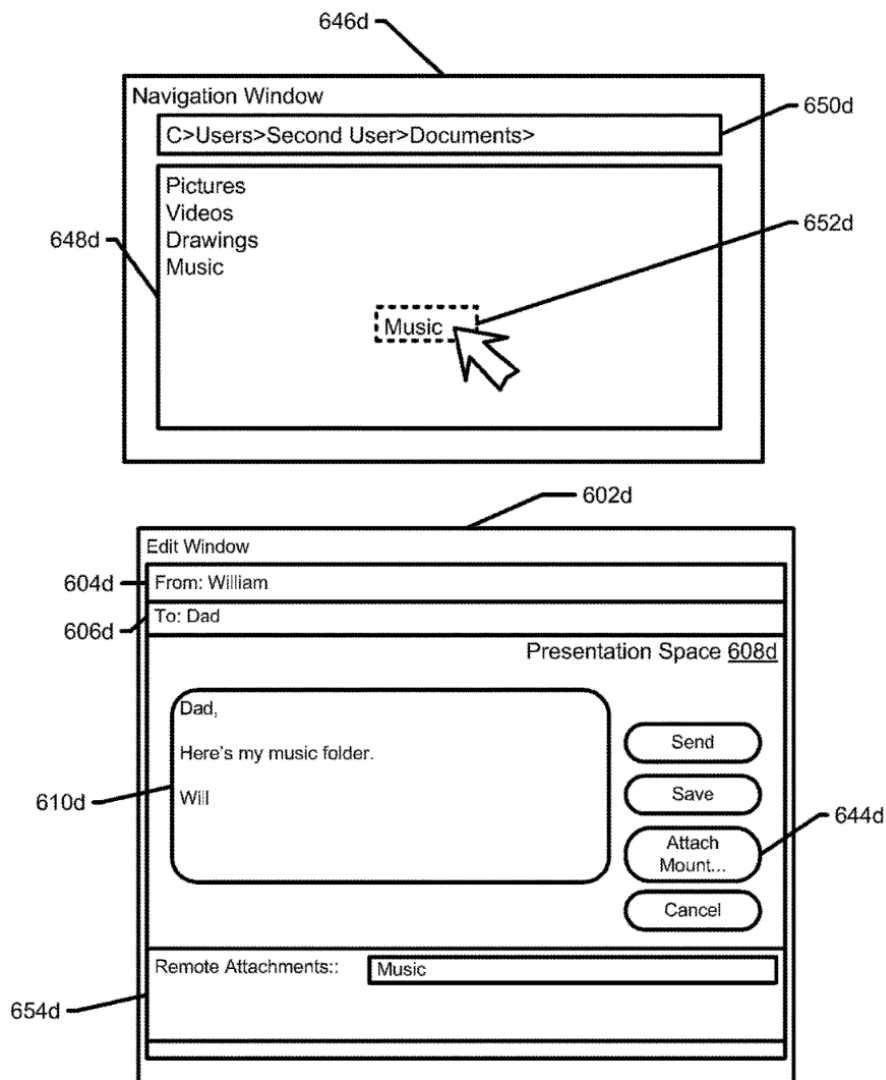


FIG. 6D

Then, from the first node, an indication of a folder may be received by the apparatus. The instructions also cause a display of a second interface with a second user element to be displayed. Both an indicia associated with at least one email address and an indication to share the folder are received from the first node, along with an indication to share the folder. ('635 application, EX2004, at [0082], [00122].) An example of this second user interface is seen in FIG. 6D of the '635

application, above, which shows a second user interface (*e.g.*, an edit window 602d) and at least one second user interface element (*e.g.*, a recipient information user interface element 606d). Based on the indicia and the indications received, an email message identifying the folder and including a reference to the folder is generated. This generated message does not include the contents of the identified and referenced folder as attachments. The message generated is then sent to a second node via a network, still without the files of the folder as an attachment. ('635 application, EX2004, at [0096], [0112], [0130], [0151], [0180].) The message instead includes information about the shared folder, such as the name of the folder and a link that the recipient may select to accept the invite and gain access to the shared folder. Selecting the link in the message may generate a signal or an indication to the apparatus to generate one or more representations of the shared folder at the second node, including via a web page or via a file explorer interface at the client node. ('635 application, EX2004, at [0112]-[0115], [0130]; '906 application, EX2003, at [0151].)

A “representation” of a shared folder is a special type of folder whose contents appear to the user to be present locally at the second node. (EX2003 at [0201].) The contents of files within the folder exist only on the cloud and are not downloaded until the user wishes to interact with them, for example, by viewing or editing them. These additional “representations” of the files within the folder

therefore merely act as placeholders for the files and are created at the second node in response to the creation of the representation of the shared folder they belong to. The contents of any of the files are not shared with the second node until the user attempts to open the file.

A representation of the shared folder is caused to be created utilizing code that is configured to be stored at the second node and cooperate with the separate client-based file explorer interface. At the time when the representation of the folder is created, the second node does not store the files within the folder, which were not sent as attachments within the generated email message. ('635 application, EX2004, at [0109]-[0119].) An example of such a client-based file explorer interface is shown in Fig. 6B of the '635 application, reproduced below, which shows a listing pane 632b and a navigation window UI element 634b, which shows data entities in the data store of the execution environment of the node. ('635 application, EX2004, at [107].)

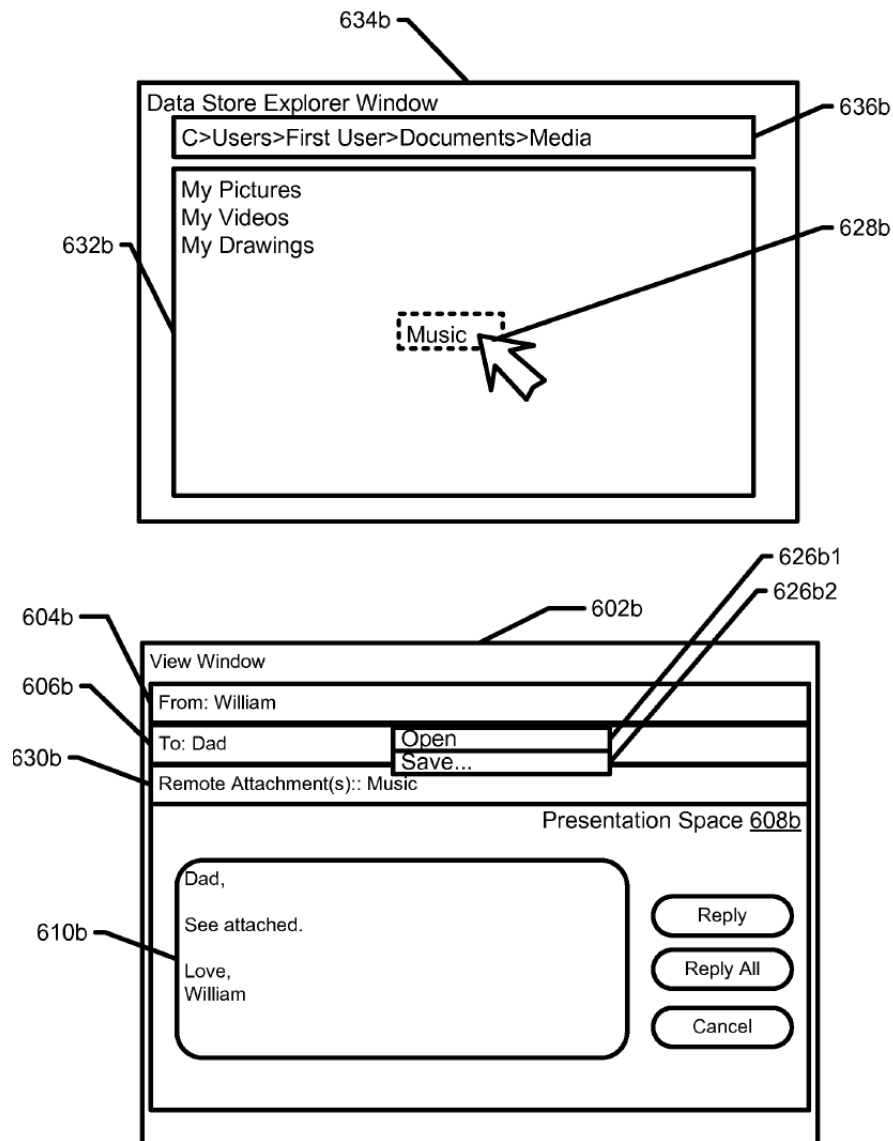


FIG. 6B

The '635 application further describes interoperation with file systems or file system clients such as the XtreamFS client, which can be distributed worldwide, along with the creation of a representation of a data object (such as a folder) . ('635 application, EX2004, at [116], [118].) A representation of the shared folder may be displayed at the second node in the client-based file explorer interface among other folders.

A representation may be based on or include a portion of a data object. Portions of the data object may include file, folder, or other metadata. ('635 application, EX2004, at [116]-[117].) An indication to open a file identified by a representation within the folder representation may be detected which, at that point, causes the file to be sent over the network to allow display of the file at the second node. ('635 application, EX2004, at Fig. 6C and description thereof.) File operations may then be performed by synchronizing a local replica of the data object with the original data object. ('635 application, EX2004, at [116]-[117].)

The above features are broadly covered via the challenged claims of the '520 Patent, as summarized below:

Claim	Claim Language (emphasis added)
Claim 17 (and dependent claims 18- 21)	receiving, from the second node and at at least one server, 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; ... 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: <i>cause creation of a second representation of the at least one folder</i> , 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.
Claim 18	The method of claim 17, wherein the email and the file explorer interface are <i>displayed via separate interfaces</i> for permitting access to the at least one folder <i>via multiple different interfaces based on a detection of an indication that the HTTP link has been selected.</i>

C. Challenged Claims

Petitioner challenges claims 1-8 and 17-21 of the '520 patent. Patent Owner has since disclaimed claims 1-8. (EX2045.) Only challenged claims 17-21 remain. Claims 18-21 depend from claim 17.

Claim 17 recites :

17. A method, comprising:

causing, at a first node, display of:

a first user interface element, for collecting information associated with at least one folder,

a second user interface element, 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

a third user interface element, for detecting an indication of a selection thereof to cause an initiation of a sharing of the at least one folder;

causing generation 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:

identifies the information associated with the at least one folder,

includes an Hypertext Transfer Protocol (HTTP) link,

does not include a file attachment, for permitting avoidance of 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,

is at least partially pre-written, and

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;

receiving, from the second node and at at least one server, 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;

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:

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.

(EX1001 at 55:1-56.)

D. Benefits of Folder Share Embodiment Over the Prior Art

The '520 patent is directed towards systems and methods for simple and efficient sharing of folders and files and directory data. ('635 application, EX2004, ¶¶5.) In the past, a large variety of systems existed for sharing files, folders, and other data via network (“[a] variety of means exist for sharing files, folders, and other data via network” ('635 application, EX2004, at [0005])). As disclosed to the U.S. Patent Office, each of these sharing systems required users to know how to configure and set them up. (*Id.*)

The '520 patent discloses inventions to eliminate complexity for users and make sharing as easy as sending an attachment by email while allowing for sharing of folders and directory data in addition to files. (*Id.*) It addresses the above problems by, among other things, providing a web page to the recipient with a representation of the shared folder upon the receipt of a signal from the recipient's computer and providing code to the recipient's computer that is configured to be stored on the recipient's computer and to cooperate with the file explorer interface of the recipient's client-based file explorer application to cause a second representation of the shared folder to be created among the folders stored on the recipient's computer and displayed via their local file explorer application (e.g., Windows Explorer). The representation of the shared folder permits a user to access the contents of the folder without storing the folder's files on the recipient's

computer until the recipient elects to open a given file. In other words, the files in the folder are not downloaded when the representation is caused to be created. The contents of the folder are only downloaded (and stored on the recipient's local drive) in response to a detection of an indication to open them.

Further, to facilitate access to any file, the user of the second desktop computer may employ the claimed "additional representation" (of the file(s)) which indicates the presence thereof in the shared folder(s) and allows, through the selection thereof, manual retrieval thereof. Importantly, the user of the second desktop computer determines which and how many of the file(s) of the folder(s) is/are subsequently retrieved to protect storage (and processing resources) at the second desktop computer, before file(s) are provided locally.

The inventions disclosed represent significant improvements over existing systems at the time of invention, such as Dropbox which was expressly mentioned in the '635 application. (EX2004, ¶ 5 ("[f]or each a user must know how to configure and/or setup the sharing. For example, sharing a *file* a Samba file system is different than sharing a via cloud based storage system, such as DROPBOX.")) Indeed, as *Houston* discloses, Dropbox and similar prior art systems would automatically download the folder and its contents at the second desktop computer when a folder was shared with it. In other words, when the

folder was created at the second desktop computer, it would include all of the files contained therein locally.

E. Person of Ordinary Skill in the Art

For purposes of this preliminary response only, Patent Owner does not dispute Petitioner’s definition of a POSITA. Patent Owner reserves the right to advance a different definition in this or any other proceeding and this is not an admission, concession or waiver in any respect.

IV. OVERVIEW OF CITED PRIOR ART

1. *Houston*

Houston is a patent owned by Dropbox listing its two founders as inventors. It discloses a system for synchronizing folders and their contents shared among multiple clients so that “each client participating in the share has a current version of the folder and its contents.” (EX1003, Abst., 2:1-2; *see also* EX1002 ¶ 44, citing EX1003, Abstract, 1:15-17, 1:53-56, Figure 1.) Contents of shared folders are “automatically” synchronized “immediately,” so as to enable “the user to work on a file that is at all times local to his client.” (EX1003, 2:17-18; Fig. 2; 5:37-6:3.) *Houston* performs this synchronization “[u]pon determining that a change has occurred to the synchronized folder.” (*Id.* 3:64-4:3.) *Houston* provides an example that when a user shares a subfolder within “My Dropbox”—such as “Patent Applications”—with a second user and the second user accepts the invitation to the shared folder, the server “adds the invited user’s identifier to the

list of users sharing the folder” and “the invited user’s client then obtains the latest version of the synchronized file.” (EX1003, 7:49-58.)

Storing copies of files locally at each user is critical to *Houston*’s system. *Houston* repeatedly criticizes systems that store documents remotely, for example noting “if the user is accessing the document remotely and loses his connection, he may lose his changes, be unable to continue, and may end up with a corrupted document.” (EX1003, 1:29-35; EX2026, ¶¶ 8-10, 12-14.) *Houston*’s parent provisional application, Provisional Pat. App. No. 61/233,787 (*Houston* II), which is incorporated by reference, explains in detail how the *Houston* system’s use of local copies of files at each client is a core feature of the disclosed system:

Under the traditional file server architecture, the client PC does not have a local copy in a local disk. In contrast, with the Dropbox architecture, the client does the input/output locally. According to various embodiments, the Dropbox software is watching the shared folder and doing efficient synchronization through input/output batches. That is, the Dropbox synchronizes local replica, and the server of the Drop box architecture watches for changes, instead of sending all input/output over the network. As shown in FIG. 1, ***the Dropbox architecture includes a local copy of the files in a local disk of the client personal computer.*** The Drop box client synchs remote and local changes from the local copy of the files with the Dropbox servers.

(EX2026, ¶ 11.)²

Houston states that this approach provides specific benefits over virtual

² Unless otherwise indicated, all emphasis in this POPR is added.

systems. Its system “reduces network utilization and allows synchronization to proceed without interrupting the user’s experience, while enabling the user to work on a file that is **at all times** local to his client.” (EX1003, 2:13-18.) *Houston* further states that by using its system, “the user can maintain documents and files in a synchronized folder, and have the contents of that folder available to him regardless of which of his computers and at which location he happens to be at the moment he needs them, without having to worry about which version is available on which computer.” (EX1003, 8:14-21.) Through the incorporated *Houston II*, *Houston* goes into even greater detail regarding the benefits of its system using local files at each client:

- “Various embodiments of the innovative technology presented herein eliminates the need to have a person maintaining a central server for a business. The technology makes local copies of data which are then synchronized using delta-synch protocol . . . The technology allows for a superior user experience, since multiple users may be offline or online and still use this technology. Also, the technology allows for edits of files in a shared folder to be quickly seen on the desktops of some or all the users who have access to the shared folder. The technology does not require a separate computer to be handling the sharing of folders. Instead, the technology makes use of a computing cloud, and also makes copies of data instead of storing them all in one area. In other words, the technology provides all the benefits of a traditional system for sharing files, without the hassle of a traditional infrastructure having a centralized server.” (EX2026, ¶9)
- “Also, various embodiments of the technology provides local input/output speed (which equates to less speed time in comparison to traditional systems) because the files are local, and thus listing and accessing of the files appear much more quickly to users than if they had used traditional systems. Through this technology, the user may

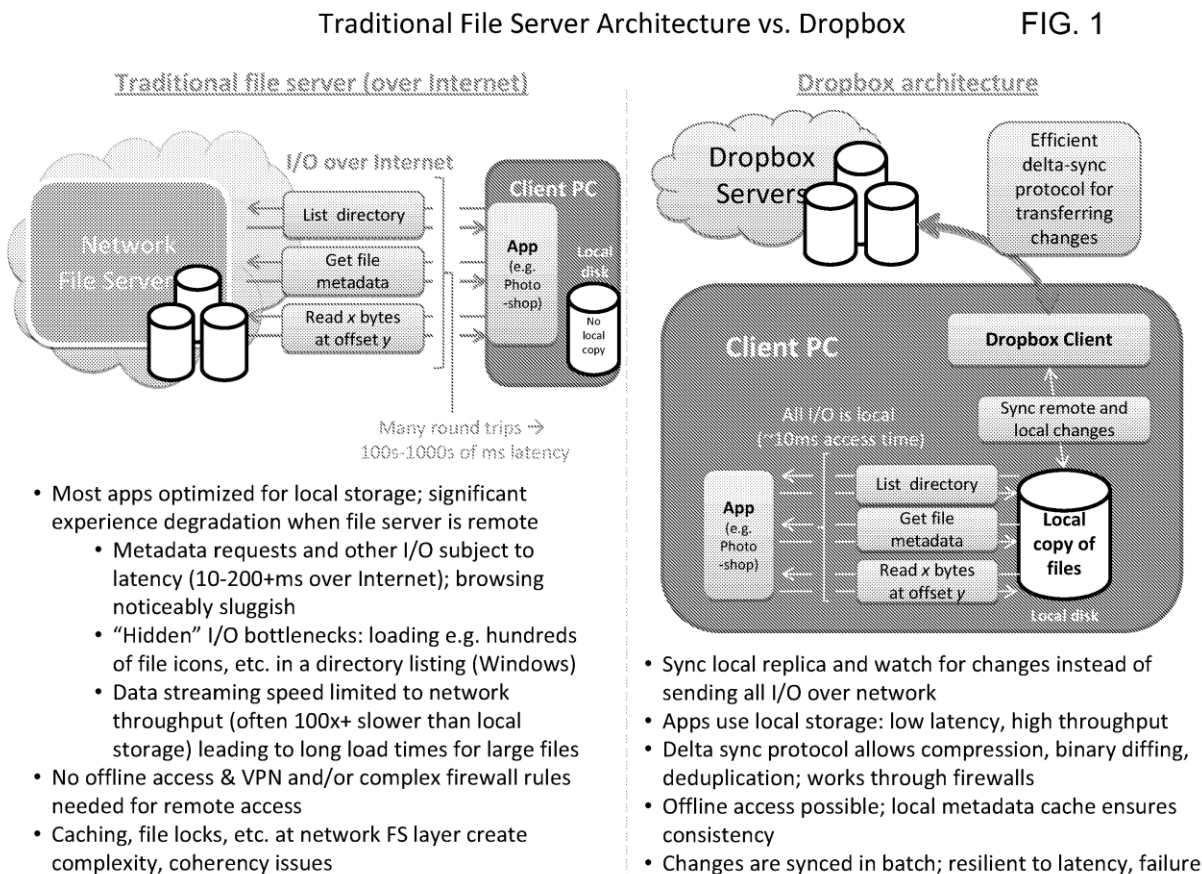
not be required to view the transfer of files that occur in the background. Further, users may work online or offline on a file in the shared folder, and there is no need to stream again the entire edited version of a file when changes may be made to the same file. Additionally, the technology allows for some or all edited versions of a file to be stored, such that if a user is working on version 5 of a file and then wishes to restore version 3, version 3 may be restored or “undeleted” by the user, while also storing the version 5 of the edited file as well. Also, if two users are working on a same file, the users may open multiple versions (such as versions 3 and 5) of the file, and both users’ edits of versions 3 and 5 of the file will be stored. Thus, built-in reversion control is provided. The technology may also be used across a variety of networks.” (*id.*, ¶10.)

- “Also, most applications of a traditional file server architecture are optimized for local storage, which means there may be a significant experience degradation when the file server is remote. Such degradation means that there may be hundreds to thousands of millisecond latency. There may be hidden input/output bottlenecks which may occur when loading data into a directory listing. Further, data streaming speed is oftentimes limited to local throughput which is much slower than local storage, leading to long load times for large files.

In stark contrast, according to various embodiments, the applications in the Dropbox architecture use local storage with low latency and high throughput. Since all input/output is local, access time is approximately 10 milliseconds.” (*id.*, ¶¶12-13.)

- “Also, in comparing traditional architecture with the Dropbox architecture, traditional file server architecture does not allow for offline access, and VPN and/or complex firewall rules may be needed for remote access. Also, caching, file locks, and the like at the network file system layer may create complexity and coherency issues. Unlike traditional file server architecture, according to various embodiments, the Dropbox architecture allows for offline access, since local metadata cache ensures consistency. Also, changes are synced in batches utilizing the Dropbox architecture, which increases efficiency and makes the system resilient to latency and failure.” (*id.*, ¶14.)

Figure 1 of *Houston II* details the *Houston* system in comparison to other file



sharing models and the requirement for local files at the client.

(EX2026, Fig. 1.)

2. *Garcia*

U.S. Patent No. 9,633,125 to *Garcia et al.* (“*Garcia*”, EX1004) is a patent originally assigned to SugarSync, Inc. that was assigned to Dropbox in 2014.

(EXS 2008, 2009.) *Garcia* purports to describe the operation of the then-existing SugarSync folder sharing application. (EX1004, Figs. 3-19.)

Garcia relates to “a system, method, and computer program . . . for enabling a user to synchronize, manage, and share files and folders across a plurality of

client devices and a synchronization server.” (EX1004, Abstract, 1:12-15, 1:39-42.) In relevant part, *Garcia* further describes a user interface with “a second view . . . that displays all folders, across a plurality of the user’s client devices, that the user has shared with other users,” or other “objects that other users have shared with the user.” (*Id.*, 2:4-6; 7:48-49.) Specifically, *Garcia* describes a “virtual drive” 1010 in Figure 10 (reproduced below), which “appears as a separate disk drive on the user’s local client device.” (EX1004, 5:27-30.)

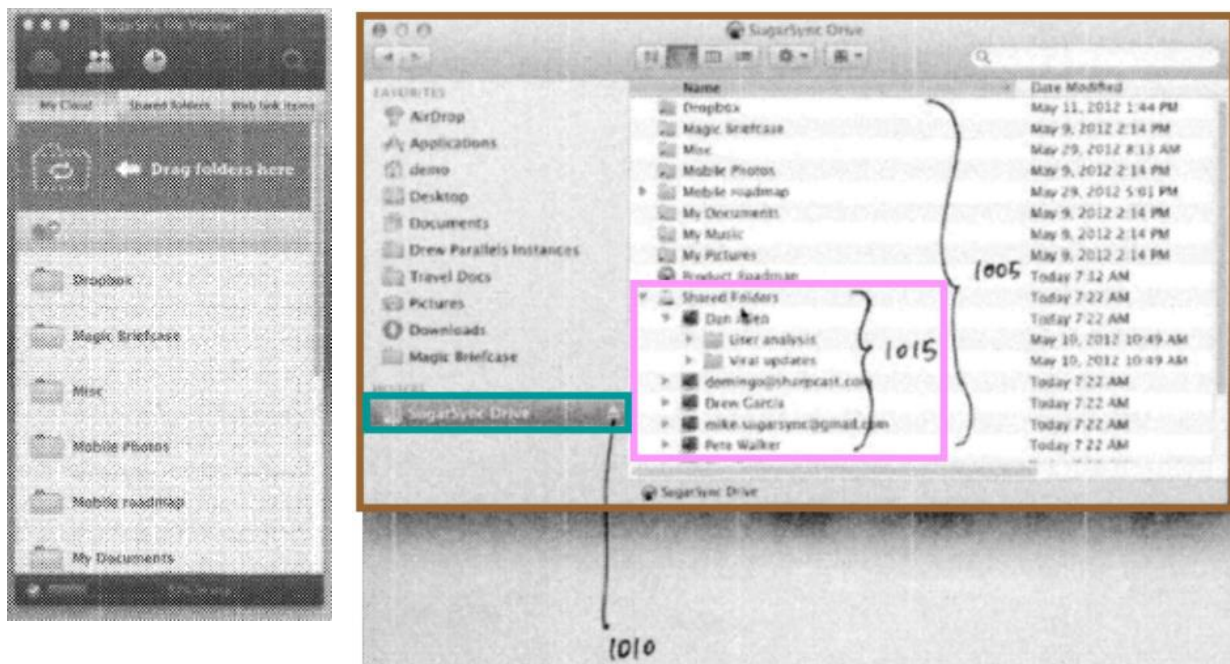


Exhibit 1004, Figure 10 (excerpted and annotated)

(EX1004, Fig. 10 (excerpted; annotations in EX1002 ¶ 53).)

Garcia describes that its “virtual drive” displays “all folders, across a plurality of synchronization clients that a user has backed up or synchronized to the synchronization server . . . as well as any folders that the user shares with other

users.” (*Id.*, 5:14-20.) In addition, each synchronization client “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).” (*Id.*, 5:20-24.)

Garcia further describes that a client can share a folder with another client by generating and sending an email with a link to and identifying the shared folder, instead of an attachment. (EX1004, 10:32-34, 10:38-40, 11:39-43, Figs. 11-12.)

While *Garcia* does not describe the process of a recipient receiving such an email or accessing a shared folder, other publicly-available documents provide more information on the operation and functionality of the SugarSync product described by *Garcia*. For example, the SugarSync User Guide explains that receiving a link to a shared folder via email will cause the shared folder to sync automatically to the recipient’s computer via the virtual drive:

Receiving a Shared Folder Invitation

If someone shares a SugarSync folder with you, you can access and download the files from the SugarSync Website, or you can [sync the folder to your computer](#). After syncing to your computer, you can locate the shared folder in **Documents > SugarSync Shared Folders**.



If you change the location of the SugarSync Shared Folders directory, or move any of its subfolders, SugarSync will not be able to update your shared files. To access your shared folders from a different location on your computer, you can create a shortcut (or an Alias for Mac) to the folder or any of the subfolders in any location. For more information, see [Creating Shortcuts to Shared Folders](#).

When you send an invitation to a shared folder, your recipients receive an email with a link button.

If they don’t have a SugarSync account, they can [sign up for a free account](#).

After creating an account, SugarSync walks them through the SugarSync Manager installation. As soon as the installation completes, the folder syncs to the recipient's computer in a new folder created automatically by SugarSync: Documents > SugarSync Shared Folders.

After the folder is synced to the recipient's computer, SugarSync keeps the shared files up-to-date in everyone's shared folder no matter who makes changes to the files.

(EX2011 at 75-76 (annotated); EX2010 at 78.)

V. THE PETITION SHOULD BE DENIED UNDER § 325(D)

Section 325(d) allows the Board to deny institution if the challenge is based on prior art and/or arguments previously presented to the Office. *Advanced Bionics, LLC v. Med-El Elek Tromedizinische Gerate Gmbh*, IPR2019-1469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). This includes art and arguments provided during prosecution as well as in AIA post-grant proceedings. *Id.* at 8. The Board weighs the following non-exclusive factors when evaluating whether to exercise its discretion:

- (1) the similarities and material differences between the asserted art and the prior art involved during any Office proceeding;
- (2) the cumulative nature of the asserted art and the prior art evaluated during any Office proceeding;
- (3) the extent to which the asserted art was evaluated by the Office, including whether the prior art was the basis for rejection;
- (4) the extent of the overlap between the arguments made during any Office proceeding and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;
- (5) whether Petitioner has pointed out sufficiently how the Office erred in its evaluation of the asserted prior art; and

(6) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Advanced Bionics, at 9-11; *Becton, Dickinson and Co. v. B. Braun Mesungen Ag*, IPR2017-01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017) (precedential) (“*Becton, Dickinson*”). “The factors set forth in *Becton, Dickinson* should be read broadly . . . to apply to any situation in which a petition relies on the same or substantially the same art or arguments previously presented to the Office during a proceeding pertaining to the challenged patent.” *Advanced Bionics*, at 10.

1. The Petition Relies on Art Considered Individually and Cumulatively by the Office and Fails to Identify Any Material Error

a. Factors 1, 2 and 4: Petitioner’s Arguments and Art are Substantially Similar to Those Previously Presented to the Office During Examination

Petitioner acknowledges that “*Houston, Garcia*, and *Wu* were of record in the ’520 patent’s prosecution,” but asserts that the Board should not deny the Petition on this basis because “the Examiner did not mention, describe, address, or apply *Houston, Garcia*, and *Wu*—alone or in combination—substantively.” (Pet. at 11.)

Petitioner misstates the facts and overlooks relevant portions of the prosecution history of the ’520 patent. First, the *Houston, Garcia*, and *Wu* references are not themselves the only information considered by the examiner during prosecution. The examiner was *also* provided the Petitions in three IPR

proceedings filed by Google LLC against predecessors of the '520 patent, namely, the '353, '737, and '215 patents. (EX2002 at 46-48; EXS 2005, 2006, 2007.)

Each of the Google petitions relied on *Houston* and *Garcia*, the **same** primary references now asserted by Petitioner. (EX2005 at 3; EX2006 at 3; EX2007 at 3.)

The examiner subsequently considered the submitted Google IPR petitions, specifically identifying them in an Information Disclosure Statement. (EX2002 at 21-22.) Indeed, the examiner signed the statement on January 28, 2023. (*Id.* at 21-22.) As stated on the signed form, the Examiner's signature indicates all documents listed above have been considered. Additionally, typed on the bottom of the form is the statement "ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.W.C./." (*Id.* at 21-24.)³ No references were lined through.

The prosecution history therefore confirms that in addition to considering the *Houston*, *Garcia*, and *Wu* references, the Examiner considered largely the same invalidity arguments based on *Houston* and *Garcia* as Petitioner now advances in connection with a continuation patent. For example, the Google petitions included extensive element by element analyses purporting to show teachings of each element of three parent patents in *Houston* and *Garcia*. (EX2005 at 6-80; EX2006 at 6-82; EX2007 at 5-82.)

³ "J.W.C" appears to be the initials of the Examiner.

The Board has previously denied review of a Petition under similar circumstances. Specifically, in *Cultec, Inc. v. StormTech, LLC*, IPR2017-00777, Paper No. 7 (PTAB Aug. 22, 2017), the Board, in an “informative” decision, denied institution where a third party submission had been provided to the examiner during prosecution which discussed the same art relied on in the petition as a primary reference. *Id.* at 7-8. The submission had also included claim charts akin to the analysis in the petition. *Id.* at 8, 10-11. The Board found that based on these materials, the “substantive disclosure of” the reference and the invalidity arguments based on the reference had previously been presented to the PTO and therefore denied institution. *Id.* at 10-11, 13. This Petition should similarly be denied.

b. Factors 3, 5 and 6: Petitioner Has Not Demonstrated a Material Error by the Office

Petitioner argues that it was “material error” that the Examiner “did not mention, describe, address, or apply *Houston*, *Garcia*, and *Wu*—alone or in combination—substantively.” (Pet. at 11.)

Petitioner, however, misstates the law regarding these *Becton, Dickinson* factors. In *Becton, Dickinson*, the Board made clear that “[i]f reasonable minds can disagree regarding the purported treatment of the art or arguments, it **cannot** be said that the Office erred in a manner material to patentability.” *Becton, Dickinson* at 9. Indeed, the *Becton, Dickinson* factors “should be read broadly . . . to apply to

any situation in which a petition relies on the same or substantially the same art or arguments previously presented to the Office during a proceeding pertaining to the challenged patent . . . ***including prior AIA proceedings.***” *Id.* at 10.

Petitioner also fails to show that the Office erred by “overlooking something persuasive.” *Id.* at 10. In evaluating whether “the asserted art was evaluated during examination, including whether the prior art was the basis for rejection, the focus should be on the record when determining whether the Office erred in evaluating such art or arguments.” *Id.* at 10-11 (internal quotations omitted).

Here, as set forth, the Office had available to it and considered not only the *Houston*, *Garcia*, and *Wu* art, but also ***arguments*** made by Google as to those references which were substantially similar to what Petitioner now advances. In view of the totality of the record, therefore, Petitioner fails to meet its burden to show that the Office failed to consider anything “persuasive” during prosecution, or otherwise erred in any way material to patentability. Instead, Petitioner provides only “a single conclusory sentence” that the claims are allegedly clearly unpatentable as a supposed error. *Roku, Inc. v. Universal Electronics, Inc.*, IPR2019-01619, Paper 11 at 18 (PTAB Apr. 2, 2020). But as in *Roku*, this is clearly inadequate. *Id.* at 18-19.

By not even addressing the *Becton*, *Dickinson* factors individually, Petitioner has failed to make the required showing. Petitioner does not discuss the

prosecution history in detail, the examination of and IPR proceedings as to related patents, or how the Office erred in considering the prior art of record. Thus, Petitioner has failed to demonstrate **any error** by the Office and the Petition should be denied. In fact, as set forth in Sections VI.A-B below, it is clear that the Office did not error by granting the '520 patent in view of the fact that *Houston* and *Garcia* do not meet multiple claim elements.

The Petition should therefore be denied under § 325(d).

VI. THE PETITION GROUNDS SHOULD BE REJECTED ON THE MERITS

Petitioner has not demonstrated that a POSITA would have found the challenged claim obvious over *Houston* in view of *Garcia*, *Manzano*, and/or *Wu*.

First, Petitioner's obviousness arguments in each ground overlook the fact that a POSITA would not have been motivated to combine *Houston* with *Garcia* to achieve the elements of the challenged claims, at least because *Garcia* teaches away from *Houston*. Petitioner's arguments therefore are based on hindsight analysis, which is improper.

Second, Petitioner's analysis of independent claim 17 begins by incorporating substantial portions of its analysis of claim 1. In doing so, neither Petitioner nor its expert identify **any** disclosures in *Houston* or *Garcia*, *Manzano*, and/or *Wu* for at least the following elements of claims 17 and 18.

17[e]: receiving, from the second node and at at least one server, **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***;

18. The method of claim 17, wherein the email and the file explorer interface are ***displayed via separate interfaces*** for permitting access to the at least one folder ***via multiple different interfaces based on a detection of an indication that the HTTP link has been selected***.

Third, Petitioner's arguments as to *Manzano* also fail because Petitions fails to identify any teachings in *Manzano* for causing creation of a representation of a shared folder at a second node.

A. All Grounds: A POSITA Would Not Have Been Motivated to Combine *Houston* and *Garcia* or *Manzano* Alone or Together

Petitioner asserts that “a POSITA would have been further motivated to modify *Houston*'s system such that, when an icon for a shared folder is created in *Houston*'s Figure 10 interface at an invited user's client, the client does not store a file in the shared folder . . . this would have provided the added benefit of allowing the invited user to have more control over what is downloaded from the shared folder and when, rather than letting the system download any file in the shared folder automatically onto the invited user's client from the host system.” (Pet. at 40-41.)

Petitioner therefore acknowledges that *Houston* does not disclose elements 1[h] or 17[g]. However, Petitioner simply proposes combining *Houston* with *Garcia* for these missing limitations. Here, Petitioner contends that *Garcia*'s teaching of a “virtual drive” that “appears as a separate disk drive on the user's

local client device” teaches these elements because “when 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.” (Pet. at 38-40, citing EX1004, 10:59-63, 11:7-10, 5:35-39.)

Petitioner is, however, mistaken that these teachings of *Garcia* are sufficient to **modify** *Houston*’s system, as it ignores the full teachings of the references, including the stated goals of *Houston*. Specifically, Petitioner fails to consider the numerous adjustments that would be required in order to modify *Houston* to incorporate the teachings of *Garcia*—substantive technical adjustments that would have taught a POSITA away from combining the synchronization engine of *Houston* with the “virtual drive” taught by *Garcia*.

First, as set forth above, *Houston* is directed to allowing the contents of shared folders to be “automatically” synchronized “immediately” and “upon determining that a change has occurred to the synchronized folder.” (EX1003, 3:64-4:3; 2:17-18; 5:37-6:3.) In *Houston*, the contents of a shared folder are updated automatically by the recipient’s client after it sends a list request and receives corresponding metadata indicating that a folder has changed. (*Id.* 5:37-6:3.) Petitioner’s proposed modification of *Houston* from a system intended to download the contents of files automatically and immediately to one that merely functions as a “virtual drive” would have thus frustrated the heart of the inventions

of *Houston* and would render *Houston* inoperable for its intended purposes, namely, a system designed to allow a plurality of users to collaborate on a shared folder, such that “each client participating in [a shared folder]” would be provided with “a current version of the folder and its contents.” (EX1003, Abstract.)

Petitioner overlooks these significant inconsistencies between the teachings of *Houston* and *Garcia*, and does not even attempt to explain how a POSITA would have combined the references in the manner claimed by the ’520 patent.

Moreover, *Houston*’s synchronization method requires that each client (with which a folder is shared) receives a “notification” when a file in a shared folder has changed and, in response thereto, sends a “list request” for “file metadata for all files in subscribed folders.” (EX1003, 5:37-6:3.) The client then uses such “file metadata” to “examine . . . the block list for each file and identifies any listed blocks that the client does not already have in its database 502.” (*Id.* at 5:60-63.)

Petitioner does not make any attempt to explain how these technical aspects of *Houston* can be redesigned to be compatible with a “virtual drive”-based system taught by *Garcia*. As just one example, Petitioner does not explain how a client in its proposed *Houston-Garcia* combination would possess any “blocks” to “examine,” as required by *Houston*. Such technical problems, combined with the inadequate or uncertain means provided by either *Houston* or *Garcia* to ameliorate them, would have discouraged a POSITA from attempting the combination

proposed by Petitioner. Indeed, Petitioner’s proposed combination would require a complete overhaul of the architecture of *Houston*, including its “metadata server,” “block server,” and “notification server,” and would be contrary to the fundamental goal of *Houston* and eliminate its key function, which is ensuring the availability of synchronized local copies of files at each user. *In re Urbanski*, 809 F.3d 1237 (Fed. Cir. 2016); *Cook Grp. Inc. v. Bos. Sci. Scimed, Inc.*, 809 F. App’x 990, 1001 (Fed. Cir. 2020) (“the Board properly weighed the loss of key functions as a relevant factor in the motivation to combine analysis”); *Plas-Pak Indus. v. Sulzer Mixpac AG*, 600 F. App’x 755, 758 (Fed. Cir. 2015); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *Univ. of Md. Biotechnology Inst. v. Presens Precision Sensing Gmbh*, 711 F. App’x 1007, 1010 (Fed. Cir. 2017). Importantly, Petitioner does not provide **any** evidence for its assertion that a POSITA would have had “a reasonable expectation of success” combining the disparate teachings of *Houston* and *Garcia*. (Pet. at 40-41.) As discussed above, *Houston*’s system is premised on having a local version of each file at the client. *See supra* at IV (1) (discussing purpose of *Houston* is to have local copy of file available).

On the other hand, *Garcia* teaches that each synchronization client “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).” (*Id.*, 5:20-24.) However, Petitioner fails to identify any

creation of a “representation” of a shared folder at the receiving second node as required by the claims. That is an independent reason for there being no motivation to modify the teachings of *Houston* as Petitioner suggests. Moreover, even assuming *Garcia* or *Manzano* disclosed the use of representations as claimed, as the Federal Circuit has recently held, “it does not suffice to meet the motivation to combine requirement to recognize that two alternative arrangements . . . were both known in the art. . . . The mere fact that these possible arrangements existed in the prior art does not provide a reason that a skilled artisan would have substituted [one system] with [another].” *Virtek Vision Int’l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882 (Fed. Cir. 2024).

As set forth above, the relevant claim language recites that when a folder is shared with a second node, a special version of the shared folder is created at the second node that appears to the user to exist locally at the second node, but whose contents (and the contents of files within the folder) exist on the cloud and are not downloaded till the user wishes to interact with them. This innovative aspect of the claimed inventions is not taught by either *Houston* or *Garcia/Manzano* alone or in combination. Moreover, a POSITA would not been motivated to simply combine *Houston* with *Garcia/Manzano* to arrive at this feature because doing so would made *Houston* inoperable for its intended purpose and removed key

functions according to *Houston*. See *supra* at IV (1); EX2026, Fig. 1, ¶¶9-10-12-14; EX1003, 2:17-18; Fig. 2; 5:37-6:3.

Therefore, none of the challenged claims are rendered obvious by combining *Houston* with either or both of *Garcia* and *Manzano*. Further, because these proposed combinations underly each ground, they all fail.

B. Petitioner Has Failed to Show that *Houston* in view of *Garcia* Renders the Claims of the '520 Patent Obvious Under 35 U.S.C. § 103 (Claims 17-21)

1. Neither *Houston* nor *Garcia* Teaches the Element “receiving, from the second node and at at least one server, 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” (Claim 17)

Petitioner labels this element “17[e]” (Pet. at 85), and addresses it in conjunction with the next element, 17[f]. However, nowhere in its Petition does it identify any teachings in *Houston* or *Garcia* of the claimed “signal.”

Instead, Petitioner merely identifies teachings of a “metadata server” and a “block server” which “synchronize folders and store files therein.” (Pet. at 58, citing EX1003, 2:63-66.) Petitioner also argues that a “web interface” in *Houston* “allows access to shared folders from any computer with network access.” (*Id.* at 58, citing EX1003, 2:10-12.) Petitioner does not explain why anything in its cited disclosures of *Houston* corresponds to the claimed “signal.”

Petitioner next argues that *Garcia* similarly teaches a “synchronization”

process and a “web interface.” (Pet. at 58, citing EX1004, 8:29-31, 11:44-50, Fig. 13.) Relying on its expert, Petitioner also describes what a POSITA allegedly “would have understood” regarding *Garcia*’s synchronization server and web interface. (Pet. at 59-60, citing EX1002 ¶ 152, EX1004, Figs. 2, 10, 10:60-61.) Here, too, Petitioner does not explain why anything in its cited disclosures of *Garcia* corresponds to the claimed “signal.”

Petitioner therefore does not cite any teachings in *Houston* or *Garcia*, or otherwise offer any argument or opinion from its expert for the “receiving . . . a **signal** for causing creation of a first representation” element of 17[e]. Nor does Petitioner offer any opinion from its expert that the claimed “signal” would have been obvious. Therefore, Petitioner fails entirely to meet its burden to show invalidity as to this element.

Indeed, the requirement that the server receive a signal before it causes creation of representations of the shared folder is an innovative aspect of the ’520 patent and the Original Applications, as set forth in Sections III.B and III.D above. To the extent Petitioner is permitted to respond that it would have been obvious to receive the claimed signal for causing creation of representations, any such argument would implicate hindsight bias and is impermissible.

2. **Neither *Houston* nor *Garcia* Teaches the Claim Element “wherein the email and the file explorer interface are displayed via separate interfaces for permitting access to the at least one folder via multiple different interfaces based**

on a detection of an indication that the HTTP link has been selected” (Claim 18)

Claim 18 depends from claim 17. Therefore, for all the reasons that Petitioner fails to show claim 17 is invalid, the Petition should be denied as to claim 18 as well.

Petitioner’s analysis under claim 18 also fails for separate reasons. Petitioner relies entirely on *Garcia* for claim 18, and argues that “***a POSITA would have known*** that (1) clicking the HTTP link would have opened a web page in a web browser that is separate from a file explorer interface of a client-based file explorer application.” (Pet. at 61, citing EX1002 ¶ 156.) Besides tacitly acknowledging that *Garcia* does not teach this element, Petitioner also mischaracterizes the teachings of the relevant art.

As set forth in Section IV.2 above, *Garcia* does not contain an explicit teaching of a response to clicking an HTTP link in a received email. However, other publicly available documentation about the SugarSync system (which *Garcia* describes) sheds more light on this point. For example, the SugarSync User Guide explains that receiving a link to a shared folder via email will cause the shared folder to sync automatically to the recipient’s computer ***via the virtual drive***, not via a web page:

Receiving a Shared Folder Invitation

If someone shares a SugarSync folder with you, you can access and download the files from the SugarSync Website, or you can [sync the folder to your computer](#). After syncing to your computer, you can locate the shared folder in **Documents > SugarSync Shared Folders**.



If you change the location of the SugarSync Shared Folders directory, or move any of its subfolders, SugarSync will not be able to update your shared files. To access your shared folders from a different location on your computer, you can create a shortcut (or an Alias for Mac) to the folder or any of the subfolders in any location. For more information, see [Creating Shortcuts to Shared Folders](#).

When you send an invitation to a shared folder, your recipients receive an email with a link button.

If they don't have a SugarSync account, they can [sign up for a free account](#).

After creating an account, SugarSync walks them through the SugarSync Manager installation. As soon as the installation completes, the folder syncs to the recipient's computer in a new folder created automatically by SugarSync: **Documents > SugarSync Shared Folders**.

After the folder is synced to the recipient's computer, SugarSync keeps the shared files up-to-date in everyone's shared folder no matter who makes changes to the files.

(EX2011 at 75-76 (annotated); EX2010 at 78.)

Therefore, based on a detection that the HTTP link of the folder share email has been selected at the recipient's node, *Garcia* (in describing SugarSync) teaches, at best, that an "installation" procedure is initiated, after which the shared folder is visible in the recipient's virtual drive, not via a web page or "multiple different interfaces" as the claim requires.

Second, Petitioner again overlooks a claim element entirely. Here, Petitioner overlooks the element that "***the email*** and ***the file explorer interface*** are displayed via separate interfaces." Instead, Petitioner and its expert appear to limit their analysis to the "for permitting access" element of the claim. (Pet. at 60-61;

EX1002 ¶¶ 156-57.) Neither Petitioner nor its expert offer any analysis or opinion as to what “interface” the email is “displayed” via, or any argument that it is a “separate” interface from the “file explorer interface,” as the claim requires,

Importantly, Petitioner fails to address the fact that the limitation as a whole is specifically purposed “for permitting access to the at least one folder *via multiple different interfaces based on a detection of an indication that the HTTP link has been selected*.” Nowhere in the cited references is there even a suggestion of such claimed “separate” interfaces so that “access” is “permit[ed]” “via *multiple different interfaces*” “*based on a detection of an indication that the HTTP link has been selected*,” where such “Hypertext Transfer Protocol (HTTP) link” is “include[d]” in “the at least one email,” as claimed. Only Patent Owner teaches and claims such “*detection of an indication that the HTTP link has been selected*” as being the “*bas[is]*” “*for permitting access to the at least one folder via multiple different interfaces*,” in the context of such “separate” interfaces, as claimed.

3. Claims 19-21 Are Not Obvious Over *Houston* in View of *Garcia*

Claims 19-21 depend on claim 17. For at least the reasons set forth above with respect to claim 17, Petitioner has not put forward sufficient evidence that *Houston* in view of *Garcia* renders claims 19-21 obvious.

Petitioner has therefore failed to demonstrate a reasonable likelihood that

claims 17-21 are rendered obvious over *Houston* in view of *Garcia*. Therefore, Ground 1 of the Petition fails.

C. Ground 2: Petitioner Has Failed to Show that *Houston* in view of *Garcia* and *Manzano* Renders the Claims of the '520 Patent Obvious Under 35 U.S.C. § 103 (Claims 17-21)

In its Ground 2, Petitioner purports to rely on *Manzano* only for elements 1[h], 7[f], and 17[g]. (Pet. at 65.) Petitioner does not rely on *Manzano* for element 17[e] or claim 18, which, as set forth, are not taught by the proposed combination of *Houston* and *Garcia*. Therefore, for the reasons set forth above with respect to Ground 1, Petitioner has not demonstrated a reasonable likelihood that claims 17-21 are rendered obvious over *Houston* and *Garcia* in further view of *Manzano*.

Petitioner is also wrong about the teachings of *Manzano*. For example, in connection with elements 1[h]/17[g], Petitioner asserts only that “*Manzano* discloses that ‘file icons, such as the icon 600, in a workspace displayed on display device 290 can visually indicate whether a corresponding file (such as a file, the transfer of which may be as is discussed herein with reference to FIG. 3) has been downloaded to or is otherwise stored on (i.e., is local to)... the user device 280.’” (Pet. at 67, citing EX1005 ¶ 50.)

However, the cited disclosures from *Manzano* do not relate to creation of a representation of a shared folder in a client-based file explorer interface, as required by the claims. Instead, *Manzano* teaches that a folder where transferred

files are to be placed is ***automatically*** created at the second electronic device before the file transfer is completed. (EX1005 ¶ 41.) Indeed, the manual download process described by Petitioner relates to particular ***files*** being transferred from the first device, not to any shared folders. (Pet. at 68, citing EX1005 ¶ 51.)

This is further exemplified by the fact that users may be able to access folders within ***their*** workspaces when they themselves “log[] into a new computing device (i.e., a computing device on which the user hasn’t previously logged) with the user’s account information.” (EX1005 ¶ 53) Even in that scenario, all of the user’s workspaces will be available to them on the new computing device automatically and any files within the folders may be downloaded based on according to “subscription parameters.” (*Id.* ¶ 53.) Nothing in these disclosures of *Manzano* teaches creating a representation of a folder shared with a recipient at a second node.

Moreover, for all the reasons set forth above in connection with *Houston* and *Garcia*, a POSITA would not have been motivated to combine *Houston* or *Garcia* with *Manzano* as doing so would frustrate the heart of the inventions of *Houston* and would render *Houston* inoperable for its intended purposes.

Therefore, Ground 2 of the Petition fails.

D. Grounds 3 and 4: Petitioner Has Failed to Show that *Houston* in view of *Garcia*, *Manzano*, and *Wu* Renders the Claims of the ’520

Patent Obvious Under 35 U.S.C. § 103 (Claims 17-21)

In its Grounds 3 and 4, Petitioner purports to rely on *Wu* only for element 17[d]. (Pet. at 73.) Petitioner does not rely on *Wu* for element 17[e] or claim 18, which, as set forth, are not taught by the proposed combinations of *Houston*, *Garcia*, and/or *Manzano*. Therefore, for the reasons set forth above, Petitioner has not demonstrated a reasonable likelihood that claims 17-21 are rendered obvious over *Houston*, *Garcia* and *Manzano* in further view of *Wu*.

Therefore, Grounds 3 and 4 of the Petition fail.

VII. SECONDARY INDICIA ADDITIONALLY CONFIRM THAT THE CHALLENGED CLAIMS ARE NON-OBVIOUS

Several secondary considerations—including evidence of commercial success, long-felt but unsolved needs, failure of others, and unexpected results—provide additional factual evidence that the challenged claims are non-obvious. Moreover, as set forth below, a nexus exists between the aforementioned secondary considerations and the claimed inventions of the '520 patent. Here, for example, the secondary considerations evidence is a direct result of the unique characteristics of the claimed inventions.

In related litigation, Patent Owner alleges that Petitioner infringes one or more challenged claim of the '520 patent by incorporating at least the following functionalities: folder sharing, file requests, and Smart Sync. In relevant part for this proceeding, the inclusion of and increased adoption of Smart Sync most

clearly shows that the challenged claims are non-obvious.

A. Commercial Success

Dropbox has achieved significant commercial success as a direct result of incorporating the unique characteristics of the claimed inventions into its products, specifically through incorporating the Smart Sync functionality.

“Smart Sync” is a marketing label for the synchronization engine currently used in Dropbox’s desktop application to keep a user’s files and folders synchronized between their local filesystem and Dropbox’s servers. Dropbox explains that Smart Sync is a “feature that makes all the content in a user’s Dropbox account seamlessly accessible from their desktop file system — and the content *takes up virtually no local disk space until it’s needed*,” such that “Team members gain full visibility and unprecedented access to their entire Dropbox right from their desktop file system, *no matter how large*.” (EX2012.)

Dropbox introduced Smart Sync (f/k/a “Project Infinite”) in or around April, 2016, as a technology that would “reimagine how people find, access, and collaborate with large amounts of data.” (EX2013.) Dropbox went on to explain that because “[t]he amount of information being created and shared has exploded, but . . . most individuals’ laptops can only store a small fraction of that,” “Project Infinite will enable users to seamlessly and securely access all their Dropbox files from the desktop, regardless of how much space they have available on their hard

drives.” (*Id.*) With Smart Sync, “users can see all their files and folders right from their desktop, whether they’re stored in the cloud or synced locally . . . [and] won’t need to take extra steps—like switching to a web browser—just to view files. ***And whenever they need to access files stored in the cloud, users can download them with a quick double click.***” (EX2014.)

According to a January 30, 2017 article, Smart Sync is “[c]entral to Dropbox’s new team-centric approach . . . that all of your group’s files and shared documents should be easily within view and within reach,” because it “mak[es] all the files in your group Dropbox, no matter how gigantic it gets, accessible through your computer’s file-system interface. It doesn’t matter if you don’t have enough space on your local drive. The upstream files look like any other item in your Dropbox, but a little cloud icon indicates that they’re ‘on-demand’ files: click on one and it will quickly download and open, as if it were there on your disk the whole time.” (EX2015.) As a result, the article states, “[Smart Sync] does make you want to start using it right now.” (*Id.*) Indeed, Smart Sync was available only to business subscribers at its launch, but is now available to all Dropbox users. (EX2016 at 32.)

Dropbox explains that Smart Sync was the result of a full rewrite of “the heart of” the Dropbox sync engine. (EX2017.) According to Dropbox, this was because “the server-client protocol and data model” of the prior sync engine had

been designed for a “simpler time and a simpler product.” (*Id.*) Indeed, the “full rewrite” of the Dropbox sync engine involved making changes to “the core of the operating system” itself, which Dropbox acknowledged testing for over a year to “battle-test[] its stability and integrity.” (EX2018.)

The launch of Smart Sync was seen as part of Dropbox’s strategic pivot to focus more on enterprise/business use cases and compete with platforms like Microsoft SharePoint and Google Drive. (EX2019; EX2020.) Analysts viewed it as a significant step in Dropbox’s evolution from a consumer cloud storage service to an enterprise software company. (EX2019.)

The widespread adoption and commercial success of Smart Sync as a core Dropbox feature therefore demonstrates the commercial success of the claimed inventions of the ’520 patent. Moreover, there is a direct nexus between Smart Sync and the claimed inventions. For example, as set forth above, a key benefit of the claimed inventions is the ability to make available shared folders (and the files within them) to recipients simply as “representations” without needing to download the contents of any files to each such user’s local drive until they are needed. Thus, not only does the shared folder overwhelm the recipient’s drive space, but each recipient has the ability to selectively download only those files they need to access. Moreover, because no files are automatically downloaded to the recipient’s computer at the time of sharing, for each such file that a recipient

wishes to download, the recipient is guaranteed to access the most up-to-date version of the file.

B. Industry Praise

Smart Sync was hailed as a game-changer that solved the problem of limited local storage space while still providing access to all files in the cloud. (EX2012; EX2019.) This on-demand cloud storage solution was described as an “industry first” cross-platform capability. (EX2012; EX2019.)

Tech journalists lauded Smart Sync as a smart and innovative approach that made cloud storage more seamless and user-friendly. (EX2019; EX2020; EX2025.) It eliminated the need to constantly juggle which files to sync locally and which to leave in the cloud. By providing visibility and access to entire cloud file repositories from the desktop, Smart Sync streamlined cloud-based collaboration for teams. (EX2012; EX2014.) Indeed, according to another article, “Smart Sync is very much in the spirit of the original Dropbox: It lets users keep their old habits and skills while breaking down boundaries between local and network, what’s ‘here’ and what’s ‘in the cloud.’ It may not *feel* like a revolution. But it does make you want to start using it right now.” (EX2015.)

The launch of Smart Sync was seen as part of Dropbox’s strategic pivot to focus more on enterprise/business use cases and compete with platforms like Microsoft SharePoint and Google Drive. (EX2019; EX2020.) Analysts viewed it

as a significant step in Dropbox's evolution from a consumer cloud storage service to an enterprise software company. (EX2019.)

There is a clear nexus between the claimed inventions and this industry praise. For example, the fact that Smart Sync was praised for “breaking down boundaries between local and network, what’s ‘here’ and what’s ‘in the cloud,’” dovetails with the advantages of the claimed inventions which allow for “representations” of shared folders and files to be displayed at a recipient’s computer without the folders and files actually being present on their local drive.

C. Long Felt Need

There was a long felt but unmet need for the functionality recited by the claimed inventions of the '520 patent. (EXS 2023; 2024; 2025; 2022; 2017.) For example, as described in Section III.B above, prior art systems suffered under a number of functional and technical limitations compared to the benefits enabled by the claimed inventions.

Dropbox acknowledges the limitations of such prior art systems when it notes that “[i]t can be a hassle sharing large files like photos and videos, especially from a mobile device.” (EX2021.) Dropbox itself suggests that users can “skip the hassle” by using Dropbox. (*Id.*) However, the “hassle” referenced by Dropbox is precisely the problem solved by the claimed inventions, as set forth above.

Specifically, Dropbox stated that Smart Sync solves “a major issue our users

have asked us to solve,” namely, that “[t]he amount of information being created and shared has exploded, but most people still work on devices with limited storage capacity.” (EX2013.) Dropbox explained that the design of Smart Sync was necessitated by the fact that “the tools that many rely on to access their data—traditional ones like corporate file servers (shared network drives) and newer, browser-based solutions—aren’t suited to the way modern teams work.” (*Id.*) Thus, Dropbox believed, “Project Infinite [Smart Sync] will change the way teams store and access data.” (*Id.*) Indeed, Smart Sync has been lauded as “a great innovation for Dropbox, as it removes two big pain points of the service.” (EX2025.)

Additionally, after the date of invention for the asserted claims, companies such as Amazon, Microsoft, Google, Box and others began implementing the specific features covered by the challenged claims and used by Dropbox. (EXS 2027-2044.) Therefore, the long felt but unmet need for the inventions of the ’520 patent demonstrates that the challenged claims were nonobvious.

Therefore, the long felt but unmet need for the inventions of the ’520 patent demonstrates that the challenged claims were nonobvious.

D. Industry Skepticism and Failure of Others

There was skepticism concerning Dropbox’s attempts to implement the claimed features into its products. Dropbox itself recognized the challenges in

implementing functionality such as Smart Sync. (EXS 2017, 2018, 2022.)

Dropbox advised others against attempting to implement this functionality, noting that “in many environments it would [be] a terrible idea.” (EX2022.)

The difficulty Dropbox acknowledged facing in implementing Smart Sync and the skepticism Dropbox demonstrated with regard to the suitability of implementing it for others in the industry further demonstrates that the challenged claims were nonobvious.

E. Unexpected Results

Dropbox acknowledges that the “rewrite” of its sync engine was a massive undertaking lasting over four years and “really hard.” (EX2022.) Indeed, it admits that “in many environments it would have been a terrible idea.” (*Id.*) Part of the complexity, Dropbox states, arises from the fact that “Dropbox has hundreds of billions of files, trillions of file revisions, and exabytes of customer data. Users access their files across hundreds of millions of devices, all networked in an enormous distributed system.” (*Id.*) Nevertheless, Dropbox set out to rewrite the sync engine because the previously existing sync engine “had fundamental issues with its data model that only showed up at scale.” (*Id.*)

Dropbox’s implementation of Smart Sync and therefore the claimed inventions therefore yielded greater than expected results, transforming Dropbox’s sync engine’s functionality from its sandy and unreliable foundations into the

commercial success of Smart Sync described above. The unexpected results Dropbox obtained from adopting the functionality in the challenged claims supports the conclusion that the claims were nonobvious.

VIII. CONCLUSION

For the foregoing reasons, the Petition should be denied.

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that there are 11,104 words in this paper, excluding any table of contents, table of authorities, mandatory notices under 37 C.F.R. § 42.8, certificate of word count, certificate of service, or appendix of exhibits. This certification relies on the word count of the word-processing system used to prepare this paper.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on April 30, 2024, I caused a true and correct copy of the foregoing materials to be served via the Patent Office electronic filing system, and electronic service via email to the following attorneys of record pursuant to Petitioner's consent.

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