

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

SECOND DECLARATION OF TODD MOWRY, PH.D.

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I, Todd Mowry, declare as follows:

I. INTRODUCTION

1. I submitted in this matter a prior Declaration, which I understand was filed as Exhibit 1002 on January 22, 2024. My background and qualifications remain as stated in paragraphs 1–16 and Exhibit A of that Declaration (“First Declaration”).

2. In addition to the materials listed in my First Declaration, I have reviewed and considered Dropbox’s Petition, Patent Owner’s Preliminary Response (“POPR”), the Board’s Institution Decision (“DI”), Patent Owner’s Response (“POR”), and Dr. Michael Smith’s Declaration (“Smith Declaration” or Exhibit 2051), including the materials cited in these documents. I have also reviewed and considered the transcript of Dr. Smith’s deposition held on January 9, 2025 (“Smith Transcript”) (Exhibit 1028).

3. In forming my opinions, in addition to my knowledge and experience, I have considered the materials cited in my First Declaration and the materials cited herein, which are listed in Appendix A. I confirm that my technical analysis, my understanding of the relevant legal principles stated in paragraphs 19–28, and my appraisal of a person of ordinary skill in the art stated in paragraph 29 included in my First Declaration remain unchanged.

II. SUMMARY OF OPINIONS

4. As stated in my First Declaration, the Board need not construe any term in the challenged claims, and they should be given their plain and ordinary meaning. I understand that Dr. Smith disagrees by proposing a construction for the term “representation of the at least one folder” which is erroneous in several ways: the construction is contrary to the express text of the claim and its plain and ordinary meaning; improperly stuffs limitations into the claim term; and misreads the specification. But under either the plain and ordinary meaning of the claim term, or Dr. Smith’s improper construction, the challenged claims are invalid as obvious.

5. For the reasons discussed in my First Declaration, it is my opinion that there is nothing inventive about claims 17-21 of the ’520 patent. As detailed below, it remains my opinion that the prior art renders obvious claims 17-21 of the ’520 patent.

6. Nothing in the POPR, POR, Smith’s Declaration, and Smith Transcript changes my opinions set forth in my First Declaration. As stated in my First Declaration and in this Reply Declaration, I have interpreted the ’520 patent and the prior art references consistent with the knowledge and understanding of a person of ordinary skill in the art. In this Reply Declaration, I respond to the areas of dispute raised by Dr. Smith.

III. CLAIM CONSTRUCTION

7. As explained in my First Declaration, the Board need not construe any term in the challenged claims to resolve the underlying controversy. Exhibit 1002, ¶20. Any reasonable interpretation of those terms, consistent with their plain and ordinary meaning, reads on the prior art. *Id.*

8. Dr. Smith seems to agree with me that claims are to be given their plain and ordinary meaning, as a person of ordinary skill in the art would have understood at the time of the invention, and considering the language of the claims, specification, and prosecution history. Exhibit 2051, ¶17; Exhibit 1002, ¶20. But Dr. Smith proposes a construction for “representation of the at least one folder” that is (1) contrary to the express text in the patent, as well as plain and ordinary meaning; (2) improperly imports limitations into the claim; and (3) misreads the specification. *See* Exhibit 2051 ¶¶73-88.

9. First, Dr. Smith proposes a definition that effectively reads out part of the claim term: “representation.” He defines a “representation of the at least one *folder*” as “a *folder* that” Exhibit 2051, § B. For support that the “representation of the at least one folder” is “itself a folder,” Dr. Smith cites claim elements 17[e]-[g]. Exhibit 2051, ¶¶75-77. Those claim elements state that a “representation of the at least one folder” can be stored in “at least one server” (in 17[e] and [f]) or at the “second node” (in 17[g]). Exhibit 1001, 55:38-56. But a person of ordinary skill in

the art would not understand this language to mean that the “representation of the at least one folder” is necessarily saved *as a folder*. On the contrary, the language in claim elements 17 [e]-[g] describe how a “representation of the at least one folder” can be “display[able]” via a “web page” (in 17[e] and [f]) or “file explorer interface of the client-based file explorer application” (in 17[g]). Exhibit 1001, 55:38-56. The claim language therefore suggests that, consistent with the claim term’s plain meaning, a person of ordinary skill in the art would understand a “representation of the at least one folder” to have a sign or symbol that stands in the place of (*i.e.*, represents) a folder rather than be the literal folder itself. Further, a person of ordinary skill in the art would understand that an icon—such as a folder icon on a web interface—is data, which is capable of being stored and displayed.

10. I understand that during Dr. Smith’s deposition, he testified to also understanding that a representation of an item is not the literal item itself. Specifically, he testified that the image of an American flag is not the same as “the somewhat abstract notion of a country” and that, “in a technical context,” the icon of Microsoft Word is *not* the same as the Microsoft Word application itself. Exhibit 1028, 29:04-30:07, 32:15-36:01. Further, I understand that Dr. Smith testified that “in the MacOS, 32-bit versions of Windows, and other operating systems, [a folder is defined as] a container for programs and files and graphical user interfaces,

symbolized on the screen by a graphical image (icon) of a file folder.” *Id.*, 40:08-41:17, 36:07-37-12.

11. Second, the proposed construction improperly imports limitations into the claim. Dr. Smith relies on claim element 17[d] for interpreting a “representation of the at least one folder” to mean that the representation does not contain the contents of the file(s) when they are first created. Exhibit 2051, ¶80. But claim element 17[d] does not even include the claim term. Exhibit 1001, 55:14-37. Instead, the only claim elements in claim 17 that contain the disputed claim term are elements [e], [f], and [g]. These claim elements are for a different aspect of the claim invention that claim element [d]. the language of “whose file contents are stored remotely and are not communicated to the user till the user initiates the communication” in element 17[d] corresponds with the requirements associated with the email that is generated to share the folder with the recipient. In contrast, 17[e] focuses on creating the representation of the folder after the email sharing the folder is received by the user of the second node and the second node sends a “signal” to the server. And 17[f] and [g] focus on yet other steps, causing display of the webpage with the first representation of the folder (17[f]) and causing receipt of code for displaying the second representation of the folder on the user’s computer (17[g]). Said otherwise, 17[e], [f], and [g] relate to when representations are created or displayed whereas 17[d] focuses on generating an email and the requirement that the

email “not include a file attachment.” A person of ordinary skill in the art would not read the claim term in the convoluted way Dr. Smith suggests, relying on elements that do not mention the claim term and focus on entirely different aspects of the claimed invention.

12. Moreover, to the extent claim 17[d] is considered, Dr. Smith’s proposed construction would seem to change the language of this element from one which is *permissive* (“for permitting avoidance”), to language that *requires* avoidance (“is stored remotely and is not communicated to the user till the user initiates the communication.”). Strangely, after reading Dr. Smith’s deposition transcript, it seems unclear that Dr. Smith has a position on whether his proposed construction is permissive. Exhibit 1028, 67:15-68:02 (“Q: if somebody said that your construction meant that it was required that the file contents are not communicated to the user until the user initiates the communication, would that be correct? A: I haven’t studied, at length, the issue of the transfer being required or not. I think that would require further analysis”). This lack of clarity is meaningful here. On one hand, if remote storage is not required—meaning automatic downloading of file contents can occur—Dr. Smith’s arguments criticizing references such as Houston as allegedly downloading automatically hold no water. *See* Exhibit 2051, ¶¶ 97-99. On the other hand, if remote storage is *always* required under Dr. Smith’s construction, no evidence supports this, as discussed herein.

13. Dr. Smith also references other claims to support his proposed construction. But these referenced claims underscore why Dr. Smith’s proposed construction is meritless. Dr. Smith references disclaimed claim 1, which include the claim term “representation of the at least one file,” and he highlights in purple and green the various aspects he believes support specific parts of his construction. Exhibit 2051, ¶81. Notably, he highlights in green that claim 1 states “storage at the second node does not store the at least one file when the creation of the representation of the at least one folder is caused.” *Id.* This language is explicit: when a “representation of the at least one folder” is created, the “second node does not store the at least one file.” This explicit language is missing in claim 17. And this concept of not saving a file at the second node when the “representation of the at least one folder” is created, is what Dr. Smith seems to want to force into the definition of a “representation of the at least one folder”—perhaps because claim 17 does *not* have the clear language of disclaimed claim 1. But if Dr. Smith’s proposed construction is adopted, the explicit language in claim 1 (which also has the

“representation of the at least one folder” term) is superfluous.¹ This unnatural reading, which would make language in other claims superfluous, is not how a person of ordinary skill in the art would understand read the claim term to mean.

14. Third, Dr. Smith’s reliance on the specification’s incorporation by reference of an abandoned related patent (the ’635 application) is erroneous. Exhibit 2051, ¶¶83-88 Dr. Smith relies on claim 1 of the ’635 application, which he argues requires that a “data object” be stored “in the second execution environment” and

¹ Dr. Smith makes similar arguments with disclaimed claims 7 and 8. Exhibit 2051, ¶82. He fails to explain why a “representation of the at least one *folder*” in claim 17 would be equivalent to a “representation of the at least one *data object*” in the disclaimed claims 7 and 8. But I understand that the ’635 application lists “files and folders in a file system” as “[e]xemplary data objects.” Exhibit 2004, ¶69. Importantly, the reference to disclaimed claims 7 and 8 also support a broader interpretation than Dr. Smith proposes because these claims also contain more explicit language (“the storage at the second node does not store any file in the at least one data object”), which highlights why Dr. Smith’s choice to artificially jam into the claim term at issue what is explicit elsewhere, would render other claim language superficial.

“accessing the representation [by the first execution environment] includes accessing the data object from the second data store,” which means the detailed claims of the ’520 patent must be read to require a requested folder not be communicated to the requester “till the user initiates the communication.”² *Id.*, ¶84. Dr. Smith’s citations to the ’635 application do not identify what is initiating “accessing” of the “data object” or whether accessing requires the requester to initiate the communication. Based on Dr. Smith’s citations, nothing precludes a communication of the “data object” separate from “accessing.”

15. Furthermore, I understand that the Board has reviewed the ’635 application and also read it to support a broader reading of the claim term at issue than Dr. Smith proposes. The Board explained that the ’635 application has an example of a representation of a folder: “a window or other visual interface element displayed on a screen of a display presenting information representing a program entity such as a folder.” Paper 12 (“DI”), 42-43 (citing Exhibit 2004, ¶¶ 49-52, 69). Dr. Smith does not engage with this part of the Board’s analysis for the meaning of

² Dr. Smith fails to explain why a “representation of the at least one *folder*” in the ’520 patent would be equivalent to a “representation of the at least one *data object*” in the ’635 application.

the word “representation,” which Dr. Smith recognizes “parallel[s]” the “proposed construction of ‘representation of the at least one folder.’” Exhibit 2051, ¶ 87. The Board also explained that the ’635 application states: “a representation of a data object may include and/or may otherwise be based on a replica of at least a portion of the data object.”³ DI, 43 (citing Exhibit 2004 ¶116). And this meant that the “representation” language Dr. Smith previously proposed would require that the contents of files *not* be part of the representation until a user interacts with it. *Id.*

³ The language the Board highlights here aligns with my view of how a person of ordinary skill in the art would understand a “representation of the at least one folder.” A person of ordinary skill in the art would know that there could be other metadata of a folder stored in the icon of the folder itself such that a “representation of the at least one folder” contains a portion of the folder itself (such as the image of that folder). As an example, a “representation of the at least one data object” could be a thumbnail icon on a computer which has a still frame of a video file. In this example, the video file is the “data object” and the still frame of that video file is the “replica of at least a portion of the data object.” The thumbnail icon does not have the video file downloaded and/or is not the video file itself.

Dr. Smith only engages with this last point of the Board’s opinion. Exhibit 2051, ¶88.

16. Dr. Smith argues that “the representation could represent the data object itself or a replica of the data object, both of which are stored remotely.” Exhibit 2051, ¶88. Specifically, he cites how ¶ [116] in the ’635 application mentions working with a client, XtreamFS, that file data can be replicated across multiple storage servers “to handle problems and failure scenarios that can occur in distributed systems,” that data objects could be “across multiple storage servers,” and how paragraphs around ¶ [116] allegedly describe the “variety [of] means available to the execution environment, for attaching and/or otherwise mounting a representation of a data object in a data store in another execution environment.” Exhibit 2051, ¶ 88. But nothing in the ¶ [116]—read in full, including the paragraphs surrounding it—suggest that the contents of data objects are “not communicated to the user till the user initiates the communication” as Dr. Smith’s construction dictates. *See* Exhibit 2004, ¶¶ [110]-[116].

17. In sum, I maintain the opinion that no construction is needed. But even if the Board were to construe the term, and even if it were to adopt Dr. Smith’s claim construction, the claims at issue are still invalid as obvious under either the erroneous claim construction Dr. Smith advocates, or the term’s plain and ordinary meaning.

IV. CHALLENGED CLAIMS ARE UNPATENTABLE

A. A Person Of Ordinary Skill In The Art Would Have Been Motivated To Combine Houston and Garcia

18. Dr. Smith argues a person of ordinary skill in the art would have not combined Houston and Garcia because “[w]hereas Houston ‘automatically’ downloads local copies from shared folders and synchronizes them with other local copies, Garcia functions as a ‘virtual drive’ for remotely stored files without first downloading them locally to all a user’s devices.” Exhibit 2051, ¶104. As explained below, Dr. Smith misstates Houston’s teachings, and there is nothing inconsistent about modifying Houston with a system like Garcia that initially downloads a folder locally only after the second user clicks a link.

1. Houston Does Not Require Automatically and Immediately Downloading a Shared Folder

19. Dr. Smith’s argument starts with the premise that “Houston’s system ‘automatically’ and ‘immediately’ synchronizes folders and their contents among multiple clients by downloading local copies of shared documents to each user’s client”—i.e., without the folder recipient clicking on a folder. Exhibit 2051, ¶98. Dr. Smith’s citations, however, do not support its argument, and Houston is, in fact, agnostic regarding how and when a shared folder is *initially* downloaded locally to a second user. Houston does not disclose any alleged benefit to initially

downloading a newly shared file without the user clicking on the file to request the download.

20. Dr. Smith’s first citation (Exhibit 1003, 2:17-18) indicates only that “changes to files” are propagated to client local devices—i.e., files *already downloaded* to the folder recipient—not that folders are automatically and immediately downloaded locally when folders are initially shared with a second user. Exhibit 1003, 2:17-18 (“**Changes to files** are propagated to and from the host system by transferring only sets of blocks of a file that have undergone changes.”)⁴.

21. Dr. Smith’s citation to Houston at 5:37-6:3 also does not support its argument. This passage refers to updating a “synchronized folder” on the second user’s machine. Exhibit 1003, 5:37-41 (“[A] client 108 with a synchronized folder informs host system 110 when a *file in a synchronized folder* has been added, modified or deleted. Other clients may also have versions of the same synchronized folder, which are updated via host system 110 as follows.”). Moreover, to the extent this passage is referring to an initial sharing of a folder, it indicates that the folder is first synchronized “on host system 110,” after which the second user might need to “register” with the server before any synchronization can happen—i.e., no automatic

⁴ Emphasis added unless otherwise noted.

downloading. Exhibit 1003, 5:45-51 (“[A]ssume that a user of a first client 108a has created a folder and invited a user of client 108b to share the folder. The folder is immediately synchronized on host system 110 as described above. ... In one embodiment, **each of the clients registers** with notification server 106; in alternative embodiments notification server is informed by metadata server 102 or by the originating client 108a of the sharing relationship.”).

22. Figure 2 of Houston, which Dr. Smith also cites, simply says that “[w]hen someone joins a shared folder, the folder appears inside their Dropbox, and syncs to their computers automatically.” Exhibit 1003, Figure 2. Figure 2, however, does not indicate how the invited user “joins a shared folder,” and does not preclude action by the second user to initiate the download. Moreover, even if Figure 2 were understood to imply that folders are initially downloaded without the invited user initiating the download, nothing in Houston indicates that this is a key feature of Houston or that Houston’s system would not work if the initial sharing of the folder were deferred until the user initiated the communication. As explained below, what Houston claims as its key benefit is the automatic updating of *existing* shared folders already downloaded to client devices, not the initial downloading of files before the user initiates a communication. See Exhibit 1003, Abstract (“As the contents of the synchronized folder are changed by any of the clients, the changes are propagated to the host system, which in turn delivers the changes to each of the

clients registered as sharing that folder. In this way, each client participating in the share has a current version of the folder and its contents.”).

2. Houston Does Not Teach Away from Garcia

23. Dr. Smith is incorrect that Houston teaches away from a system like Garcia. Nothing in Houston teaches away from a system (like Garcia’s) where files are initially stored remotely until the user clicks on a folder to download the files locally.

24. Dr. Smith’s primary argument against combining Houston and Garcia is Dr. Smith’s incorrect assertion that Houston broadly “criticizes systems like Garcia that store documents remotely.” Exhibit 2051, ¶104. Dr. Smith cites two lines in Houston:

Some methods exist to allow remote access to a computer, for example using a virtual private network (VPN) to access a corporate network from a remote location. However, 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.

25. Exhibit 2051, ¶55 (citing Exhibit 1003, 1:29-35); *see also* Exhibit 2051, ¶¶98, 104. Dr. Smith overreads this passage of Houston. Houston is merely noting the potential instability of a VPN connection when editing a document remotely, not

broadly criticizing all systems “that store documents remotely” as Dr. Smith asserts. At most, this passage is attacking the idea of *editing* documents stored remotely and not the idea, as disclosed in Garcia, of *storing* a document remotely until a user decides to double click on it to download it for storage locally.⁵ Dr. Smith acknowledges this passage may be addressing “changing a document that already exists.” *See, e.g.*, Exhibit 1028, 90:18-22 (“Q And that full sentence reads ‘However if the user is accessing the document remotely and loses his connection he would

⁵ Dr. Smith also cites Houston’s provisional application as purportedly teaching away from the combination of Houston with Garcia. *See* Exhibit 2051, ¶¶55, 56, 98, 104 (citing Exhibit 2026 at ¶¶ 8-14). Dr. Smith notably does not quote it. Nothing in the provisional teaches away from a system like Garcia that allows a user to control when the initial download of a file in a newly shared folder should occur. Rather, the provisional, like Houston, is focused on changes to shared folders that have already been downloaded. Exhibit 2026 ¶ 9 (“A file system is monitored for changes which takes place to a file. A file is read when changes or edits have occurred to the file. The changes or edits are then identified. Finally, synchronization (‘syncing’) is accomplished based on the identification of the changes.”).

lose miss changes be unable able to continue and end up with a corrupted document.”); 91:11-15 (Dr Smith explaining that “it might be reasonable to infer that he is changing a document that already exists.”). And Houston itself stores files remotely on a host system so they are accessible to other clients. *See, e.g.*, Exhibit 1003, 1:54-64 (“A first user of a first client instantiates a folder to be shared, and the folder and its contents are **synchronized with a host system** Other clients ... **obtain** a current version of **the synchronized folder** and contents.”).

26. Dr. Smith is also wrong that modifying Houston based on Garcia would have “frustrated the heart of the inventions of Houston” and would “result in the loss of ‘key functions’ and ‘benefit’ of Houston, namely, in making a shared folder and its up-to-date contents available” to all devices with which the folder has been shared. Exhibit 2051, ¶105. Nothing about this combination would interfere with making a shared folder and its up-to-date contents available to all devices the folder has been shared with—because Garcia, like Houston, teaches that changes made to an *existing* shared folder will be made automatically to the files stored locally at each device. *See* Exhibit 1004, 5:49-56 (“[A]ll synchronization clients that have an interest in **updates to the folder** ‘register’ for notices of changes to the folder. The identified clients are notified of the change to the folder (step 2035). In response to the change being a **change to content within the folder**, the content of the folder is **automatically updated** on any identified remote clients that have a corresponding

folder.”); *id.*, 6:17-20 (“In response to the change being a change to content within the folder, the content of the folder is automatically updated on any identified remote clients that have a corresponding folder.”).⁶

27. The only potential change that would result from a combination of Houston with Garcia would be that the user at the second node could control when a *newly shared folder* is *initially* downloaded—so that the file need not be downloaded until the user clicks on a file. Exhibit 1004, 5:35-39 (“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 (i.e., the client currently being used by the user.”). But as explained above, nothing in Houston teaches against such a system. Houston does not disclose any alleged

⁶ Dr. Smith acknowledges Garcia’s teachings that remote folders may be automatically updated when content in a virtual folder is changed. *See, e.g.*, Exhibit 1028, 94:12-95:4 (referring to “column 5 of Garcia ... beginning at line 44”), 100:14-21 (“The content of the folder is automatically updated. That’s important. On any identified remote clients. That’s important. That have a corresponding folder. That’s important. And by ‘important’ I mean it’s important to the sentence.”)

benefit to downloading a newly shared file before a user has even clicked on the folder, and instead is focused on ensuring already-downloaded files are automatically updated when changes are made. Exhibit 1003, 2:13-18 (“Changes to files are propagated to and from the host system by transferring only sets of blocks of a file that have undergone changes. This reduces network utilization and allows synchronization to proceed without interrupting the user’s experience”).

28. Moreover, a person of ordinary skill in the art would have understood that combining Houston with Garcia so that an invited user has control over when a newly shared folder is initially downloaded, as taught in Garcia, would provide significant advantages. As I explained, combining Houston with Garcia would give the invited user flexibility about whether and when to download a file in the shared folders depending, for example, “on whether the user’s device has **sufficient storage space** or whether the file **looks secure to the user or passes security checks.**” Exhibit 1002, ¶106 (“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 110. For instance, whether and when the invited user downloads a file in the shared folder would depend on whether the user’s device has sufficient storage space or whether the file looks secure to the user or passes security checks.”); *see also id.* ¶176.

29. Dr. Smith acknowledges similar advantages of having control over downloading a folder, including whether the user even wants to download the folder, whether sufficient bandwidth is available for the download, and whether the user's machine has enough local storage for the download. *See, e.g.*, Exhibit 1028, 69:9-70:5 (Q Is it your testimony that a person might see a representation of the at least one folder and decide not to download the folder because they don't want or need to see the contents of the folder? A My answer is that I see folders that I don't necessarily want to open or potentially download. Q And why is that? A I might know that that folder is gigabytes in size, and I don't have enough bandwidth to perform that download, for example. Q So you might have a concern about the bandwidth of your Internet connection for downloading; is that correct? A That would be one example. Q What would another example be? A That I have two folders and I would like to see one but not the other."); 71:5-71:17 ("A In 2012, it was -- it is possible that you would at least think about the size of the storage unit that you might have on your local machine and, therefore, potentially choose or not choose to download a particularly large file or a folder with particularly large files. Q And your bandwidth example would also apply to 2012, correct? A In general. And, again, I'm not sure how this relates to the case. But, in general, that's true; that it might be difficult to download a very large file on a wireless connection, for example, in that era.").

1. Houston Alone Renders Obvious Element 17[g]

30. Element 17[g] requires to “cause creation of a second representation of the at least one folder...that is stored at the second node and that is displayable via the file explorer interface of the client-based file explorer application.” Exhibit 1001, 55:52–56. With respect to Figure 10 in Houston, the I explained that the “brief absence of checkmark overlays indicates that the folders and file had not yet been synchronized with the host system,” and “[t]hus, at the very moment these icons were created . . . the client would not have stored any file within the folders, including the ‘Patent Applications’ folder[.]” Exhibit 1002, ¶100. Dr. Smith attempts to dismiss my explanation as “say-so of its expert with no facts or data, making it ‘entitled to little to no weight.’” Exhibit 2051, ¶100.

31. Dr. Smith is wrong because my explanation is supported by evidence in the form of (1) Houston’s disclosure and (2) a supplemental document called

SugarSync. Exhibit 1011 (“SugarSync⁷”). **First**, I explained that Houston’s Figure 10 explicitly discloses the use of checkmarks for some folders but not others, and therefore teaches that the items with checkmarks have been synchronized with the host system and are stored locally. Exhibit 1002, ¶99⁸ (“Houston’s Figure 10 reveals check mark overlays on the icons for the folders and one file (i.e., the check marks enclosed in circles on the lower left corner of the icons and annotated in green) in the ‘My Dropbox’ folder 1002, but not on the conventional, local folders (e.g., ‘My Meetings’)”). **Second**, SugarSync explicitly explains that “Files or folders that in sync with the cloud are represented by with green check mark . . .”. SugarSync, 1. Thus, my explanation is supported by evidence in the form of Houston’s disclosure and SugarSync.

⁷ SugarSync is a paper obtained from the Wayback Machine with a date of May 6, 2009. *See* Exhibit 1011, 1. SugarSync is relevant for showing that a person of ordinary skill in the art would have understood that check mark overlays indicate that folders and their files are synchronized with a host system. *See* Exhibit 1002, ¶100.

⁸ ¶99 of my prior Declaration addressed element 1[h], which is referenced for element 17[g]. *See* Exhibit 1002, ¶ 154.

32. Dr. Smith also argues that SugarSync “is not related to Houston and does not otherwise describe it” and that “Petitioner does not argue that it would have been obvious to combine Houston with SugarSync.” Exhibit 2051, ¶101. Dr. Smith misunderstands the application of SugarSync. SugarSync is relied on as a supplemental reference to show how a person of ordinary skill in the art would have interpreted the checkmarks in Figure 10 of Houston. A person of ordinary skill in the art would have understood that SugarSync is relevant because it shows the known use of placing checkmarks on folder and file icons to indicate that they are synchronized with a host system, similar to Figure 10 of Houston. In particular, a person of ordinary skill in the art would have understood that, as disclosed in SugarSync, “Files or folders that in sync with the cloud are represented by with green check mark.” Exhibit 1011. A person of ordinary skill in the art would have understood that the “checkmark” discussed by SugarSync is being used for a similar purpose in Houston. *See, e.g.*, the image at p. 1 of SugarSync that depicts files with checkmarks just like that shown in Figure 10 of Houston.

33. Dr. Smith argues that the image at page 1 of SugarSync discloses a gold “syncing” overlay and that “objects that are being uploaded or downloaded are represented with a gold syncing icon.” Exhibit 2051, ¶101. However, the “syncing” icon does not detract from SugarSync’s disclosure of “[f]iles or folders that in sync

with the cloud are represented by with green check mark.” SugarSync, 1. This same type of check mark is shown in Figure 10 of Houston.

34. Dr. Smith also argues that my “‘brief absence’ argument fails because it ignores claim element 17[d],” requiring the file to not be “**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.” Exhibit 2051, ¶102. In particular, Dr. Smith argues that “[r]egardless of any alleged ‘brief absence,’ Houston does not wait for ‘an initiation of the communication of the at least one file’ by a user before it stores a file at the user’s node; instead, it downloads local copies to the user’s node automatically.” Exhibit 2051, ¶102. Dr. Smith appears to be relying on his improper claim construction that he seeks to change the language of element 17[d] from one which is permissive (“for permitting avoidance”) to language that requires avoidance (“is stored remotely and is not communicated to the user till the user initiates the communication.”). As I explained above, Dr. Smith’s construction should not be adopted.

B. Garcia Teaches a “Representation of the at Least One Folder” at the Node Where the Invitation Is Received

35. Dr. Smith argues that the combination of Houston and Garcia does not disclose elements 17[d]-[g] because Garcia allegedly does not teach the creation of

“a representation of the at least one folder” at the node where the invitation is received, but rather only at “the user’s *other* devices (e.g., different nodes).” Exhibit 2051, ¶106; *see also* ¶¶ 60, 104.

36. Dr. Smith’s argument is based on Garcia’s disclosure that when a first user wants to share a folder with a second user, a link to the folder can be sent to the second user, and “when the contact clicks on the link to folder [1]115, the *contents* of the folder are shared with the contact.” Exhibit 2051, ¶¶60, 107, 110 (citing Exhibit 1004, 11:29-31) (emphasis in original). Dr. Smith also cites to language in Figure 12 of Garcia that says “[a]nyone with a link can view files. You are notified how many times the folder is downloaded.” Exhibit 2051, ¶¶60, 107. Dr. Smith appears to argue that the contents are automatically downloaded at the node where the invitation is received, *i.e.*, the node where the link is received, without the user being presented with the representation.

37. Dr. Smith is incorrect for multiple reasons. *First*, Dr. Smith mischaracterizes Garcia’s disclosure at 11:29-31 and Figure 12. Nothing in Garcia’s specification indicates that clicking on that link causes any downloading to occur, much less that no further folder icons are created. The plain text clearly shows that Garcia is simply saying that the second user can access the contents of the folder. Garcia at 11:29-31 discloses only that, “when the contact clicks on the link to folder 1115, the contents of the folder are *shared* with the contact”—*not downloaded*.

Exhibit 1004, 11:29-31. Likewise, Figure 12 states that “[Anyone with the link can view files](#)”—it does not say that when a user clicks the link, files are immediately *downloaded*:

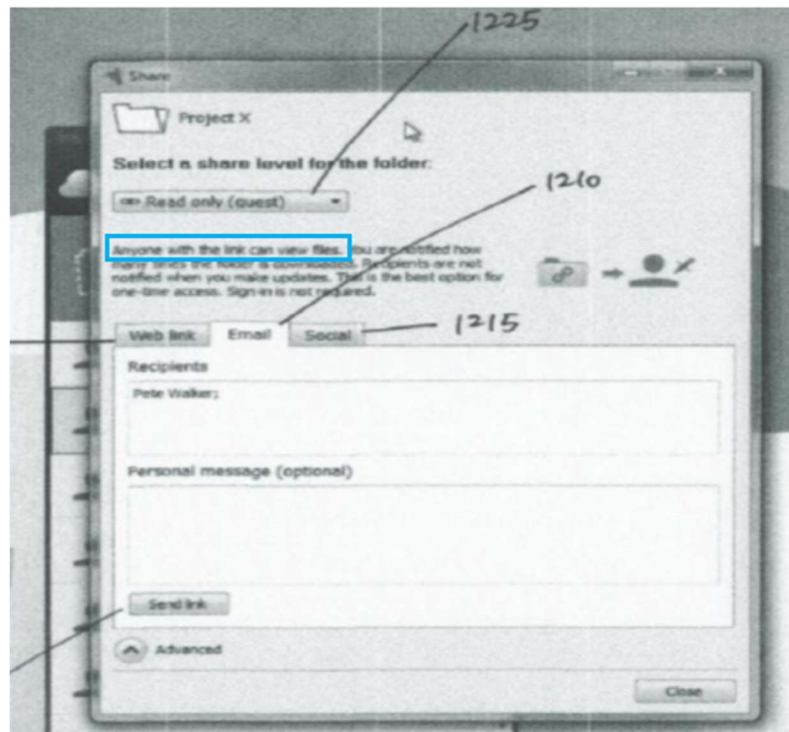


Exhibit 1004, Figure 12 (annotation added); *see also* Exhibit 2052.

38. Moreover, nothing in Garcia suggests that if the second user clicks on the email link, the second user receives an immediate download of files without using the virtual interfaces and synchronization features disclosed by Garcia. Indeed, a person of ordinary skill in the art would have known the second user still needs to access the folder by going through a virtual interface. And a person of ordinary skill in the art would have understood that clicking on a link, such as the link in the email of Garcia, will typically take a user to a webpage. Indeed, Garcia

expressly envisions accessing the folder through *either* a file explorer interface (such as that shown in Garcia's Figure 10) or a web interface (as shown in Figure 13). *See, e.g.,* Exhibit 1004, 10:52-53 ("FIG. 10 illustrates one way in which a user may access items in objects displayed in the client sync application."), 11:44-45 ("FIGS. 13-14 illustrate the corresponding web interface 1305 for the synchronization system.").

39. *Second*, Dr. Smith's suggestion that only *other devices* (i.e., devices other than the device that receives the email) would show representations is an unsupported, overly narrow and nonsensical interpretation of Garcia. Exhibit 2051, ¶¶60, 104, 106. Garcia explicitly discloses that "a user" double clicks on a file in a folder of the virtual drive to download a copy and does not limit this to the "user's other devices (e.g., different nodes)." Exhibit 1004, 5:35-39 ("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 (i.e., the client currently being used by the user)."). Thus, regardless of user device, Garcia teaches that a folder or file is downloaded by clicking on a representation of the file or folder in a virtual drive.

40. Dr. Smith's suggestion is also contrary to the intent of Garcia. Garcia provides a benefit of allowing users to choose whether and when to download remotely stored remotely. It would not make sense, and nothing in Garcia suggests that it would make sense, to limit this benefit only to certain devices and not the

device that received the folder sharing email, such that the device receiving the email would be required to download everything immediately and not be able to take advantage of the benefits of Garcia described above.

C. Claim 18 is Obvious over Houston in view of Garcia (Ground 1)

41. Dr. Smith incorrectly argues that I did not “analyze the ‘interface’ on which the email is ‘displayed,’ nor whether it is a ‘separate interface’ from the ‘file explorer interface,’” as recited in claim 18. Exhibit 2051, ¶109. I did analyze these features, and Dr. Smith’s arguments are similar to Patent Owner’s arguments in its Patent Owner Preliminary Response (“POPR”) that the Board rejected. *See* POPR, 37-39; DI, 45-47.

42. **First**, I explained that Garcia discloses the required email that “includes a Hypertext Transfer Protocol (HTTP) link.” Exhibit 1002, ¶156. A person of ordinary skill in the art would have understood that such an email would necessarily have been displayed to the folder recipient *via an interface*, without which neither the email nor the HTTP link could be presented to the folder recipient for his or her use. Further, Dr. Smith acknowledges that a “user interface” is “a means by which a user of a computer system interacts with that computer system.” Exhibit 1028, 44:6-9 (“A In general, and this may or may not be relevant to the case, a graphical user interface is a means by which a user of a computer system interacts with that computer system.”). And since Garcia teaches to interact with a computer using a

link in the email, Garcia teaches to use an email interface. *See, e.g.*, Exhibit 1004, Figure 12 (“Anyone with the link can view files.”).

43. ***Second***, I made clear that the email is displayed in an interface separate from the file explorer interface. My prior declaration explained that by clicking the emailed HTTP link in Garcia, the folder recipient “would have opened a web page in a web browser” and that the folder recipient could then “access the shared folder from the webpage or the file explorer interface.” Exhibit 1002, ¶156. The file explorer interface is shown below in Figure 10 of Garcia, and it clearly does not include the email with the HTTP link.

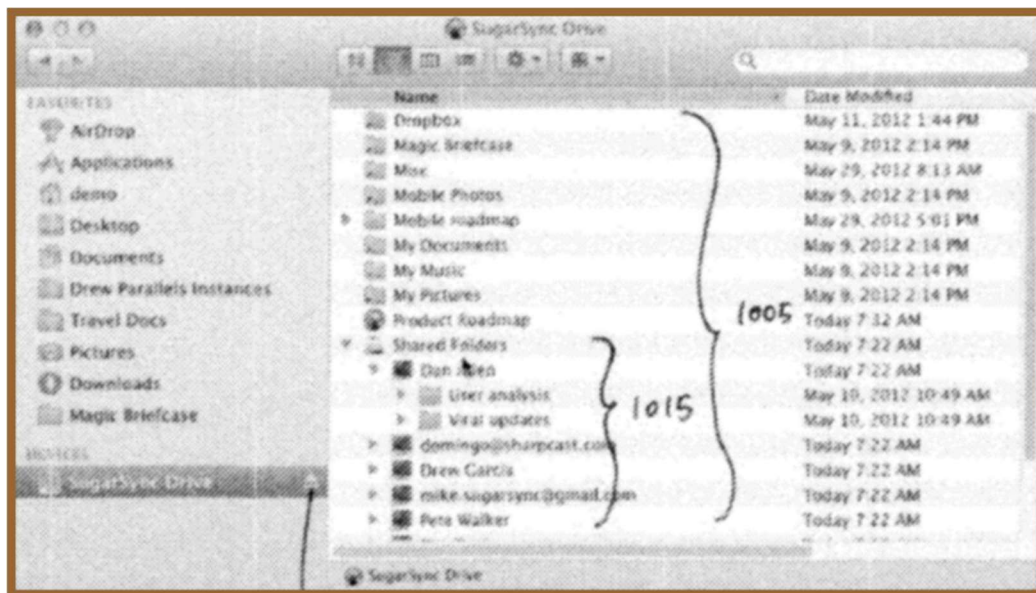


Exhibit 1004, FIG. 10

Exhibit 1002, ¶156. Accordingly, the email must have been displayed via a separate interface from the file explorer interface.

44. **Third**, Dr. Smith wrongly argues that Garcia teaches accessing the shared folder only “via the virtual drive, not via a web page” and thus not via “multiple different interfaces’ as the claim requires.” Exhibit 2051, ¶110. Dr. Smith’s argument is that by clicking on the email link, the folder recipient causes “the contents of the folder [to be] downloaded at the recipient’s device” (Exhibit 2051, ¶110), making the folder available “locally ... in the recipient’s virtual drive” but not via a webpage. But Dr. Smith agreed that Garcia discloses both a user interface for the desktop client and a web interface and that the web interface has a “shared folders” tab. Exhibit 1028, 107:11-109:5 (“Q Okay. Let's go to column 11, lines 44 to 45. ... A I have a paragraph that begins ‘Figures 13 to 14, illustrate the corresponding web interface.’ Q ‘Figures 13 to 14 illustrate the corresponding web interface 1305 for the synchronization system,’ correct? A That is the sentence that I'm looking at, yes. Q And then the next sentence states ‘similar to the user interface for the desktop client, the web interface 1305 has,’ and then it proceeds to list various views in a search fields, correct? A Yes, the list is content view, a sharing view, an activity view, and a search field.”); 108:10-109:5 (“Q So the web interface is similar to the user interface for the desktop client, correct? A The sentence in this patent says ‘similar to the user interface for the desktop client.’ Q And when it's saying ‘similar to,’ it’s saying it’s referring to the web interface, correct? A That is what I understand by this sentence. Q And then, if we go to the

next sentence, it's talking about things that are within the content view 1310, correct?

A I see 'within the content view' and I'm leaving out the references to the callouts. So within the content view the web interface has a my cloud tab, a shared folders tab, and a shared web link tab.”).

45. And, as I explained above, nothing in Garcia suggests that clicking on the email link causes an immediate download to the folder recipient's local system, and that this would be the only way for the recipient to access the files. To the contrary, as I explained, “a POSITA would have known that 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. A POSITA would have further understood that the user would be able to access the shared folder from the web page or the file explorer interface.” Exhibit 1002, ¶156. A person of ordinary skill in the art would have understood that clicking on an HTTP link will take a user to a web page such as, for example, the web interface depicted in Figure 13 of the patent. As Garcia explains, Figures 13 and 14 “illustrate the corresponding web interface 1305” that is “[s]imilar to the user interface for the desktop client”—e.g., the file explorer interface shown in Figure 10. Exhibit 1004, 11:44-46 (“FIGS. 13-14 illustrate the corresponding web interface 1305 for the synchronization system.”); *see also id.* 11:50-56 (“In the My Cloud tab 1330 are a list of folders 1345 from any of the synchronized client devices and a filter drop-down menu 1350 for filtering the list

by client device. As seen in FIG. 14, when the user clicks on a particular folder 1405 and selects a particular folder or file 1410, a set of actions is populated in an action toolbar 1415 above.”). Thus, as I explained in my prior Declaration, “the user would be able to access the shared folder from the web page or the file explorer interface”—multiple different interfaces as the claim requires. Exhibit 1002, ¶156.

46. Dr. Smith also cites a document outside of Garcia (*i.e.*, Exhibit 2011 “SugarSync User Guide”), but that document is not incorporated by reference into Garcia or otherwise mentioned by Garcia, and in any event, nothing in that document supports Dr. Smith’s argument that the folder recipient could access a shared folder only “via the virtual drive, not via a web page.” Exhibit 2051, ¶¶61, 110. Patent Owner made a similar argument in its POPR, and the Board properly rejected it: “[t]he fact that arguably related SugarSync documents indicate use of an interface other than a web page does not alter the disclosures in Garcia of using a web page.” DI, 46.

47. Dr. Smith points to the highlighted language below from the SugarSync User’s Guide, which indicates that “[w]hen you send an invitation to a shared folder, your recipients receive an email with a link button”—which is entirely consistent with my explanation that “clicking the HTTP link would have opened a web page in a web browser.” Exhibit 1002, ¶156.

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.

Exhibit 2051, ¶¶61, 110 (citing Exhibit 2011, 75-76), (annotations in original).

48. Dr. Smith also cites language explaining that if the recipient does not have a SugarSync account, the recipient can create an account, which will trigger an installation process followed by “the folder sync[ing] to the recipient’s computer in a new folder created automatically by Sugar Sync.” Exhibit 2051, ¶¶61, 110. But this specialized procedure for recipients who do *not* have an account does not indicate that users with an account do not have the option of accessing the folder via a webpage. Indeed, in language at the start of this excerpt, which Dr. Smith fails to mention, the User’s Guide expressly states that folder recipients *can* access the files either “from your SugarSync Website” or by “syncing the folder to your computer.” Exhibit 2011, 75. The User’s Guide thus supports my position, not Dr. Smith’s position.

49. Further, Exhibit 2010, cited by PO, includes the following screenshot.

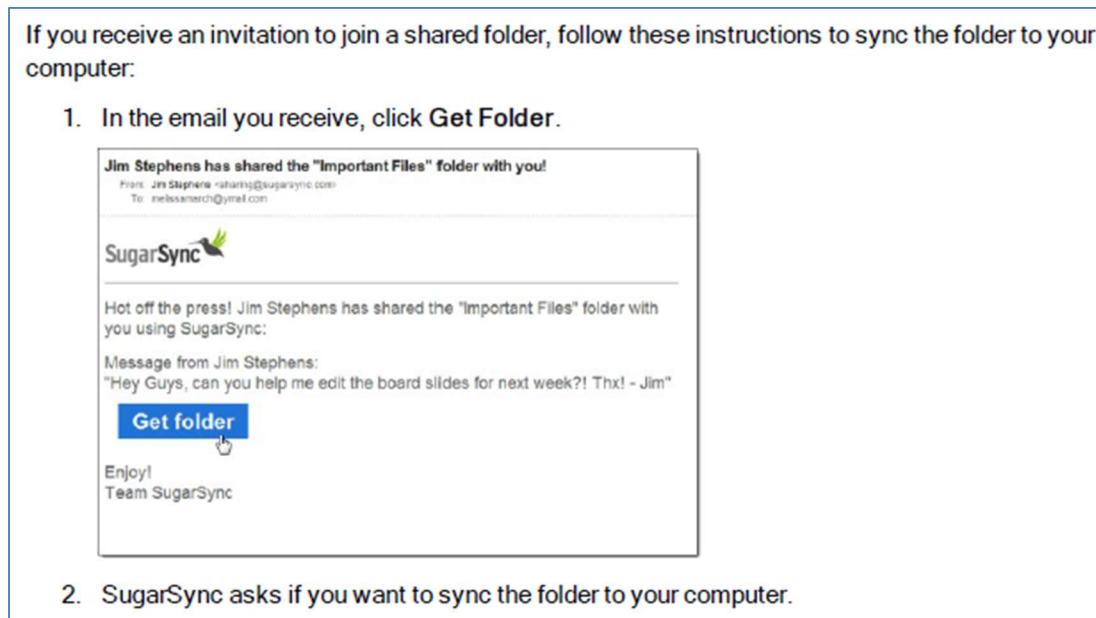


Exhibit 2010, p. 80. As shown, to sync a newly shared folder to your computer, first click “Get Folder” and then in Step “2,” “SugarSync asks if you want to sync the folder to your computer.” Thus, contrary to Dr. Smith’s position (Exhibit 2051, ¶¶61, 110), the SugarSync documents show that the folder and its contents are not automatically downloaded when the user clicks on the link in the email (i.e. the “Get folder” button). Instead, the user is then prompted to decide whether the folder should be synced to the recipient’s computer.

D. Claims 19–21 Are Obvious over Houston in view of Garcia (Ground 1)

50. Dr. Smith’s only arguments for the patentability of claims 19–21 are the arguments that Dr. Smith advanced regarding claim 17—from which claims 19–

21 depend. Exhibit 2051, ¶¶111-112. Thus, for the same reasons stated above regarding claim 17, claims 19–21 are also obvious over Houston and Garcia.

E. Claims 17-21 Are Obvious over Houston, Garcia, and Manzano (Ground 2)

51. Claims 17-21 are also obvious over the combination of Houston, Garcia, and Manzano. However, the Board found that, under a proper interpretation, the claims do *not* require that a file in a folder not be downloaded when the representation of the folder is caused, rendering this alternative ground unnecessary. DI, 48 (“Petitioner’s reliance on Manzano as an additional reference, in combination with Houston and Garcia, is not applicable to this proceeding to the extent that it is primarily directed to several requirements of claims 1, 3, and 7, which have been disclaimed.”).

52. Even under Dr. Smith’s proposed claim interpretation, Dr. Smith’s criticisms of Manzano are not relevant. Dr. Smith argues Manzano does not disclose a representation “displayable via the file explorer interface” (Exhibit 2051, ¶114) but Manzano was not relied on for that feature of element 17[g]. Manzano was relied on for teaching that the second node does not store a shared file until the user initiates the communication, and this is a feature that Dr. Smith acknowledges is disclosed by Manzano. *See* Exhibit 2051, ¶115 (“Manzano’s system teaches a system that,

among other things, does not download local files to folder automatically but instead allows a user to selectively download files stored remotely”).

53. Dr. Smith also argues that “for the same reasons that a POSITA would not have combined Houston with Garcia..., a POSITA would not have combined Houston with Manzano” because Houston allegedly teaches away from a system like Manzano that does not download files to a folder recipient automatically. Exhibit 2051, ¶115. But as explained above, Houston does not teach away from such systems, and a person of ordinary skill in the art therefore *would have* been motivated to combine Houston with both Garcia and Manzano.

54. Finally, Dr. Smith argues that Manzano is not “from the same field of endeavor” as the ’520 patent or Garcia because the patent and Garcia are directed to “sharing folders with another user” while Manzano is directed to “allowing a user to transfer their own files from a first computer to a second computer,” which Dr. Smith says is “far removed from the ’520 patent’s methods.” Exhibit 2051, ¶116. I disagree because Manzano and Garcia are each directed to “sharing electronic content among electronic devices over a network” (Exhibit 1002, ¶172), which is the same field of endeavor as the ’520 patent. For example, the ’520 patent discloses “[w]hile receiving attachments in a network communication, such as email, is common, most attachments received are unsolicited or unrequested. ... Accordingly, there exists a need for methods, systems, and computer program products for

processing a data object identification request in a communication.” Exhibit 1001, 1:66-2:15; *see also* Exhibit 1005 (Summary of the Invention; disclosing executable program to allow second user to receive “only a subset of [a first user’s] files having a predetermined characteristic”).

F. Claims 17–21 are Obvious over Houston, Garcia, and Wu or over Houston, Garcia, Manzano, and Wu (Grounds 3 and 4)

55. Dr. Smith’s only arguments against Grounds 3 and 4 are to allege that Ground 3 fails for the same reason as Ground 1, and that Ground 4 fails for the same reason as Ground 2. Exhibit 2051, ¶117. Accordingly, since Grounds 1 and 2 respectively show that claims 17–21 are obvious, those claims are also unpatentable based on Grounds 3 and 4.

V. CONCLUSION

56. Based on the foregoing, it is my opinion that claims 17-21 of the ’520 patent remain invalid.

VI. AVAILABILITY FOR CROSS EXAMINATION

57. In signing this declaration, I recognize that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross examination in the case and that cross examination will take place within

the United States. If cross examination is required of me, I will appear for cross examination within the United States during the time allotted for cross examination.

VII. RIGHT TO SUPPLEMENT

58. I reserve the right to supplement my opinions in the future to respond to any arguments that the Patent Owner or Dr. Smith raises and to take into account new information as it becomes available to me.

VIII. JURAT

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

Dated: January 24, 2025

A handwritten signature in cursive script, appearing to read "Todd Mowry", is written above a horizontal line.

Dr. Todd Mowry

Appendix A

Exhibit	Description
1001	U.S. Patent No. 11,611,520
1003	U.S. Patent No. 8,825,597 (“Houston”)
1004	U.S. Patent No. 9,633,125 (“Garcia”)
1005	U.S. Patent Application Publication No. 2010/0005138 (“Manzano”)
1006	U.S. Patent Application Publication No. 2007/0011246 (“Wu”)
1008	U.S. Patent Application Publication No. 2012/0278404 (“Meisels”)
1009	U.S. Patent Application Publication No. 2013/0067303 (“Kantor”)
1011	“SugarSync now allows you to work directly in Windows Explorer,” D. Mihovilovic, May 6, 2009
1012	Internet Archive Declaration of Nathaniel E Frank-White
1014	’520 Patent File History
1015	U.S. Patent No. 6,351,776 (“O’Brien”)
1016	U.S. Patent Application Publication No. 2008/0320397 (“Do”)
1017	“Supporting File Sharing Through Improved Awareness,” T. Whalen, August 2008
1028	Deposition Transcript of Michael Smith