Paper 66 Entered: May 15, 2014

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EMC CORPORATION, Petitioner,

v.

PERSONALWEB TECHNOLOGIES, LLC and LEVEL 3 COMMUNICATIONS, LLC, Patent Owners.

Case IPR2013-00086 Patent 7,949,662 B2

Before KEVIN F. TURNER, JONI Y. CHANG, and MICHAEL R. ZECHER, *Administrative Patent Judges*.

TURNER, Administrative Patent Judge.

FINAL WRITTEN DECISION 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

EMC Corporation ("EMC") filed a petition on December 17, 2012, requesting an *inter partes* review of claim 30 of U.S. Patent No. 7,949,662 B2 ("the '662 Patent"). Paper 3 ("Pet."). PersonalWeb Technologies, LLC and Level 3 Communications, LLC (collectively, "PersonalWeb") filed a patent owner preliminary response. Paper 9 ("Prelim. Resp."). Taking into account the patent owner preliminary response, the Board determined that the information presented in the petition demonstrated that there was a reasonable likelihood that EMC would prevail with respect to claim 30. Pursuant to 35 U.S.C. § 314, the Board instituted this trial on May 17, 2013, as to claim 30 of the '662 Patent. Paper 14 ("Dec.").

After institution, PersonalWeb filed a patent owner response (Paper 33 ("PO Resp.")), and EMC filed a reply to the patent owner response (Paper 41 ("Reply")). Oral hearing was held on December 16, 2013.¹

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is entered pursuant to 35 U.S.C. § 318(a). We hold that claim 30 of the '662 Patent is unpatentable under 35 U.S.C. § 103.

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¹ This proceeding, as well as IPR2013-00082, IPR2013-00083, IPR2013-00084, IPR2013-00085, and IPR2013-00087, involve the same parties and similar issues. The oral arguments for all six *inter partes* reviews were merged and conducted at the same time. A transcript of the oral hearing is included in the record as Paper 65.

A. Related Proceeding

EMC indicates that the '662 Patent is the subject of litigation titled *PersonalWeb Technologies LLC v. EMC Corporation and VMware, Inc.*, No. 6:11-cv-00660-LED (E.D. Tex.). Pet. 1.

B. The '662 Patent

The '662 Patent relates to a data processing system that identifies data items using substantially unique identifiers, otherwise referred to as True Names, which depend on all the data in the data item and only on the data in the data item. Ex. 1001, 1:17-21, 3:27-30, 5:66-6:6. According to the '662 Patent, the identity of a data item depends only on the data and is independent of the data item's name, origin, location, address, or other information not directly derivable from the data associated therewith. *Id.* at 3:34-37. The '662 Patent also examines the identities of a plurality of data items in order to determine whether a particular data item is present in the data processing system. *Id.* at 3:38-43.

The '662 Patent further discloses accessing data items by referencing their identities or True Names independent of their present location in the data processing system. *Id.* at 33:46-48. The actual data item or True file corresponding to a given data identifier or True Name is capable of residing anywhere on the data processing system, *i.e.*, locally, remotely, offline, etc. *Id.* at 33:46-48. If a requested data item or True File is local with respect to the data processing system, a prospective user can access the data in the True File. *Id.* at 33:48-50. If a requested data item or True File is not local

with respect to the data processing system, a prospective user may use the True File registry to determine the location of copies of the True File according to its given True Name. *Id.* at 33:50-54. However, if for some reason a prospective user cannot locate a copy of the requested data item or True File, the processor employed by the user may invoke the Request True File remote mechanism to submit a general request for the data item or True File to all the processors in the data processing system. *Id.* at 34:58-64.

C. Challenged Claim

Claim 30 recites the following (emphasis added):

30. A computer-implemented deletion method operable in a file system comprising (i) a plurality of servers; (ii) a list indicating, for each of a plurality of files in the file system, a corresponding status,

wherein, for each of a plurality of data items in the file system, said data items each consisting of a corresponding sequence of one or more parts; and

wherein each data item has a corresponding digital data item identifier, said digital data item identifier for the data item being based, at least in part, on the contents of the data item, wherein two identical data items in the file system have the same digital data item identifier; and

wherein each part is replicated on multiple servers of said plurality of servers; and

wherein said list includes digital data item identifiers for data items for which changes are to be made in the file system, the method comprising the steps of:

(A) obtaining a particular digital data item identifier of a particular data item, said particular digital data item identifier

of said particular data item being obtained in response to an attempt to delete said particular data item in said file system;

(B) updating a record in said list to reflect deletion of said particular data item from the file system, said record including the particular digital data item identifier to the list.

Ex. 1001, 43:28-55 (emphasis added).

D. Prior Art Relied Upon

EMC relies upon the following prior art references:

Frederick W. Kantor, "FWKCS (TM) Contents-Signature System Version 1.22," FWKCS122.REF (Aug. 10, 1993) (Ex. 1004, hereinafter "Kantor").

Mahadev Satyanarayanan et al., "Coda: A Highly Available File System for a Distributed Workstation Environment," IEEE Transactions on Computers, Vol. 39, No. 4 (April 1990) (Ex. 1026, hereinafter "Satyanarayanan").

E. Ground of Unpatentability

The Board instituted the instant trial based on the following ground of unpatentability:

Claim	Basis	References
30	§ 103(a)	Kantor and Satyanarayanan

II. ANALYSIS

A. Claim Construction

We begin our analysis by determining the meaning of the claims. In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

In the Decision on Institution, we construed the claim term "data item" to mean "sequence of bits," and observed that in the context of the specification, the meaning also includes one of the following: (1) the contents of a file; (2) a portion of a file; (3) a page in memory; (4) an object in an object-oriented program; (5) a digital message; (6) a digital scanned image; (7) a part of a video or audio signal; (8) a directory; (9) a record in a database; (10) a location in memory or on a physical device or the like; and (11) any other entity which can be represented by a sequence of bits.

Dec. 10. The parties agree with that claim construction. Pet. 6-7; PO Resp.

1-2. As noted in the Decision on Institution, that claim construction is consistent with the specification. Dec. 9-10 (citing Ex. 1001, 1:56-57 ("the terms 'data' and 'data item' as used herein refer to sequences of bits."); *id.* at 1:56-61, 1:66–2:4). We discern no reason to deviate from that claim construction for the purposes of this decision.

B. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In that regard, an obviousness analysis "need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR*, 550 U.S. at 418; *see also Translogic*, 504 F.3d at 1259.

We also recognize that prior art references must be "considered together with the knowledge of one of ordinary skill in the pertinent art."

Paulsen, 30 F.3d at 1480. Moreover, "it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826 (CCPA 1968). We analyze the instituted ground of unpatentability in accordance with the above-stated principles.

C. Claim 30 – Obviounesss over Kantor and Satyanarayanan

EMC asserts that claim 30 is unpatentable under 35 U.S.C. § 103(a) as obvious over Kantor and Satyanarayanan. Pet. 38-47. As support, EMC provides detailed explanations as to how each claim element, arranged as recited in the claim, is disclosed by Kantor, Satyanarayanan and/or the combination of both. *Id.* Additionally, EMC also directs our attention to the declaration of Dr. Clark. *Id.* (citing Ex. 1009).

PersonalWeb counters that Kantor does not disclose obtaining a digital data item identifier in response to an attempt to delete, that Kantor's "d" flag is not a "status" indicator, and that it would not have been obvious to have modified Kantor to combine the MULTIS list with the deleted.log, as argued by EMC. PO Resp. 3-12. PersonalWeb also alleges that Kantor is not a "printed publication" within the meaning of 35 U.S.C. § 102(b). *Id.* at 13-19. In support of its argument, PersonalWeb proffers Mr. Todd Thompson's declaration (Ex. 2014).

Upon review of the parties' arguments and supporting evidence, we determine that EMC has demonstrated by a preponderance of the evidence that claim 30 is unpatentable under 35 U.S.C. § 103(a) as being obvious over

Kantor and Satyanarayanan. We also determine that Kantor is a "printed publication" within the meaning of 35 U.S.C. § 102(b).

Kantor

Kantor describes a method of identifying duplicate files. Ex. 1004, 2-4, 48-49. In particular, Kantor applies a hash function (*e.g.*, a cyclic residue check or cyclic redundancy check (CRC)) to each file within a zip file to obtain the contents signature for each file. *Id.* at 6-8, 48-49. Each contents signature is a string of bits generated from the contents of a file. *Id.*

For each zip file, Kantor creates zip-file contents signatures by hashing the contents signatures for the files contained within the zip file ("a hash of hashes"). *Id.* at 2, 9. As described by Kantor, this is done by "adding together all the 32_bit CRC's for the files in the zip file, modulo 2^32, separately adding together their uncompressed file_lengths modulo 2^32, and then arranging the two resulting hexadecimal numbers as a single structure." *Id.* at 9. Dr. Clark testifies that addition modulo 2^32 is another well-known simple hashing function that uses addition to calculate a value for a file based on the file's contents. Ex. 1009 ¶ 20. Kantor further compares the zip-file contents signatures to check for duplicate files. Ex. 1004, 2 of Preface, 5, 9.

According to Kantor, contents signatures and zip-file contents signatures are useful to identify files that have the same contents stored on the electronic bulletin board systems. Ex. 1004, 2 of Preface, 5, 9. For example, when uploading a zip file, the system determines whether that zip

file already exists in the system using the zip-file contents signature, and then determines whether the inner files of that zip file already exist in the system using the contents signatures for the inner files. *Id.* at 9.

EMC has acknowledged that Kantor fails to disclose the underlying storage system of the BBS, and, thus, does not disclose that files are replicated on multiple servers, per claim 30. Pet. 47. Satyanarayanan discloses a network-based file replication system, where copies of files are stored at multiple servers (Ex. 1026, Abstract). EMC also argues that a person of ordinary skill would have found it obvious to modify Kantor to meet that limitation in view of Satyanarayanan. Pet. 43-44. On this record, we concur with the analysis of Dr. Clark, that it would have been obvious to combine Kantor and Satyanarayanan to provide more reliable storage systems for the BBS's files (Ex. 1009 ¶ 47).

Obtaining a digital data item identifier in response to an attempt to delete

PersonalWeb argues that Kantor alone is relied upon to teach the step of claim 30 of "obtaining a particular digital data item identifier of a particular data item, said particular digital data item identifier of said particular data item being obtained in response to an attempt to delete said particular data item in said file system;" (emphasis added). PO Resp. 3. PersonalWeb argues that Kantor fails to teach this element because Kantor fails to disclose obtaining a digital data item identifier in response to an attempt to delete a particular data item. Id. at 4. PersonalWeb continues that

the MULTIS list is formulated *prior* to any attempt to delete a file, and is used by the user to add a "d" to a specific column therein, and, subsequently, fwkc17d is run to delete the marked files. *Id.* at 4-5.

In its Reply, EMC contends that PersonalWeb and its experts acknowledge that the system in Kantor generates and maintains a master list of the contents signatures called CSLIST.SRT, and the MULTIS feature is used to analyze the CSLIST, and identify and list the files for which multiple copies exist. Reply 2. EMC also argues that PersonalWeb is mistaken in asserting that it is only when the fwkc17d command is run that "an attempt to delete" begins. *Id.* at 3. In contrast, EMC argues that it is clear from Kantor that the attempt to delete begins with the MULTIS command. *Id.*; Ex. 1004, 189.

We are persuaded that EMC has demonstrated that its view of Kantor is correct. Kantor describes the process of running FWKCS as doing "a partial clean up" and that the running of the MULTIS command "put[s] all of the duplicate zipfiles together in groups, in the file MULTIS." Ex. 1004, 189. Thereafter, a word processor is used to add a "d" to the line of the MULTIS file for the files to be deleted. *Id*. The contents signatures of the listed files are "obtained" in response to the "attempt to delete." *Id*. Thus, the process begins with the MULTIS command, which obtains file information, including contents signatures, from the CSLIST. We are persuaded that this is equivalent to the process step of "obtaining" in claim 30.

In addition, as EMC notes, the '662 Patent discloses that when an attempt to delete a file occurs, the system obtains the file's True Name from the Local Directory Extensions table and copies it to an audit file. Reply 4; Ex. 1001, 21:51-22:6. Thus, we agree with EMC that "obtaining" step of claim 30 must include within its meaning the copying of a contents signature to a file, per the description of deleting a file in the '662 Patent. Thus, even if the deletion process in Kantor begins with the running of the fwkc17d command, as argued by PersonalWeb (PO Resp. 3-6), we agree that the digital data item identifier is obtained in response to an attempt to delete. Thus, we determine that EMC has demonstrated sufficiently that Kantor obtains a digital data item identifier in response to an attempt to delete, per claim 30.

In addition, PersonalWeb also argues that the "Exclude" feature of Kantor, which was relied upon by EMC in its petition (Pet. 24-25), cannot disclose the obtaining step of claim 30. PO Resp. 6-7. EMC counters that marking of an entry with an "x" begins the attempt to exclude the file, similar to the arguments discussed above with respect to the use of the MULTIS list to delete a file in Kantor. Reply 5. However, given our determination that EMC has demonstrated by a preponderance of the evidence that Kantor obtains a digital data item identifier in response to an attempt to delete, we need not reach whether the "exclude" feature also provides the same functionality.

Kantor's "d" flag

PersonalWeb argues that the "d" placed by a file in the MULTIS list does not indicate a "status," per claim 30, as it does not indicate that the file has been deleted, but simply indicates that a user may want to delete the file. PO Resp. 7-8. EMC counters that the "d" placed by a file indicator are plainly status indicators, and cites Dr. Clark's testimony that a person of ordinary skill in the art would have understood that a "flag" is a status indicator. Reply 6; Ex. 1083 ¶ 19.

We agree with EMC that the "d" is an indicator and must provide a "status." Claim 30 provides, in part, "a list indicating, for each of a plurality of files in the file system, a corresponding status." While PersonalWeb argues that "[a] user's desire is not the 'status' of a file" (PO Resp. 7), PersonalWeb fails to point to a definition of status that would so limit the term. Claim 30 does not specify what the indicator provides a status of and, as a consequence, the scope and breadth of claim 30 encompasses indicators that provide any type of status. The presence of a "d" would indicate whether a file is to be deleted or has been deleted, which would be a "status" of the file. Thus, we determine that EMC has demonstrated sufficiently that Kantor's "d" indicator is a status indicator, per claim 30.

Modifying Kantor to combine the MULTIS list with the deleted.log

PersonalWeb argues that Kantor fail to teach to suggest one aspect of
claim 30, namely "updating a record in said list to reflect deletion of said
particular data item from the file system." PO Resp. 8. PersonalWeb argues

that the MULTIS list is not updated to reflect deletion of a record, and that it would not have been obvious to modify Kantor to combine the MULTIS list with the delete.log list to show the contents of both in the same file. *Id.* at 9. PersonalWeb argues that such a combination would be illogical and is not motivated by the disclosure of Kantor because total listing of both is already in the MULTIS list. *Id.* PersonalWeb also argues that adding entries of deleted files to the MULTIS list would make it harder to identify files with redundant signatures. *Id.* at 10.

In its Reply, EMC contends that the two files, the MULTIS list and the delete.log list, are not redundant because the delete.log list presents a chronological sequence of actual deletions and provides a complete history of operations, whereas the MULTIS list reflects the files currently in the system that are to be deleted or which were recently deleted. Reply 10. EMC also points to the testimony of Dr. Clark that explains that combining the files is both logical and obvious as a mere design choice, providing that the files could have been combined in a way that made it clear which portions of the single file comprised the original contents of the two files. *Id.*; Ex. 1083, ¶ 25.

Based on the arguments and evidence presented, we agree with EMC that it would have been obvious to have combined the lists into a single list. PersonalWeb's view of the combination is akin to a bodily incorporation of one list into another. PO Resp. 8-12. However, "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference . . . Rather, the test is

what the combined teachings of those references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). We see no reason for the list to be combined into a single file and to have all of the entries be intermingled. Rather, the modification of Kantor could be accomplished by combining the contents of the files into a single list while still maintaining their apparent separation. Such a combination would not be "illogical" and would not cause the confusion PersonalWeb ascribes to the modification of Kantor. As such, we are persuaded that EMC has demonstrated that combining Kantor's MULTIS list and the delete.log list into a single file would have taught the updating of a record in a list to reflect deletion of the particular data item from the file system, per claim 30.

Evidence of non-obviousness

PersonalWeb further submits that its evidence of non-obviousness rebuts EMC's evidence of obviousness. PO Resp. 12-13. In support of its argument, PersonalWeb directs our attention to three licensing agreements, as well as the declaration of Mr. Kevin Bermeister. *Id.* at 12 (citing Exs. 2010-12; Ex. 2009 ¶¶ 3-9). PersonalWeb argues that each license granted to a third party was not for the purpose of settling a patent infringement suit. *Id.*

In its Reply, EMC contends that PersonalWeb has failed to establish a sufficient nexus between claim 30 of the '662 Patent and the above-identified license agreements. Reply 11-12. EMC argues that each of the licenses granted rights to more than just claim 30, and involved related

parties with interlocking ownership and business interests. *Id.* We agree with EMC that PersonalWeb has failed to establish the requisite nexus between the licensing agreements and claim 30.

A party relying on licensing activities as evidence of non-obviousness must demonstrate a nexus between those activities and the subject matter of the claims at issue. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). Further, without a showing of nexus, "the mere existence of . . . licenses is insufficient to overcome the conclusion of obviousness" when there is a strong ground of unpatentability based on obviousness. *SIBIA*Neurosciences, Inc. v. Cadus Pharm. Corp., 225 F.3d 1349, 1358 (Fed. Cir. 2000); see Iron Grip Barbell Co. v. USA Sports, Inc., 392 F.3d 1317, 1324 (Fed. Cir. 2004).

The evidence of non-obviousness presented by PersonalWeb falls short of demonstrating the required nexus. Neither PersonalWeb nor the declaration of Mr. Bermeister (Ex. 2009) establishes that the licensing agreements (Exs. 2010-12) are directed to the claimed subject matter recited in claim 30. For instance, PersonalWeb does not present credible or sufficient evidence that the three licensing agreements arose out of recognition and acceptance of the claimed subject matter recited in claim 30. In the absence of an established nexus with the claimed invention, secondary consideration factors are entitled little weight, and generally have no bearing on the legal issue of obviousness. *See In re Vamco Machine & Tool, Inc.*, 752 F.2d 1564, 1577 (Fed. Cir. 1985). Furthermore, even if we assume that above-identified licenses establish some degree of industry respect for the

claimed subject matter recited in claim 30, that success is outweighed by the strong evidence of obviousness over Kantor and Satyanarayanan discussed above.

Based on the record before us, including the evidence of obviousness presented by EMC and the evidence of secondary considerations regarding licensing activities presented by PersonalWeb, we conclude that EMC has demonstrated by a preponderance of the evidence, that claim 30 would have been obvious over the combination of Kantor and Satyanarayanan.

Whether Kantor is a "printed publication"

In its petition, EMC takes the position that Kantor is a "printed publication" under 35 U.S.C. § 102(b). Pet. 4-5. EMC asserts that Kantor has been publicly available since August 1993, which is prior to the critical date, April 11, 1995, one year before the earliest priority date claimed by the '662 Patent. *Id.* To substantiate its position, EMC explains that Kantor is "a published manual that describes a software program called the Frederick W. Kantor Contents-Signature System Version 1.22 ('FWKCS')." *Id.* at 38 (citing Ex. 1004, Title Page). EMC maintains that Dr. Frederick Kantor distributed Kantor—the user manual (version 1.22), the version relied upon by EMC (*see* Ex. 1004)—with the FWKCS program as shareware and posted it online to electronic Bulletin Board Systems including "The Invention Factory" and "Channel 1" for an extended period of time, where Kantor could be downloaded by anyone. Pet. 4-5, n. 2 (citing Ex. 1004, 3, 158-59). According to EMC, Kantor was accessible to others in the relevant

community of the users and system operators of electronic Bulletin Board Systems. *Id.* In support of its position, EMC proffers a declaration of Mr. Michael A. Sussell (Ex. 1041) and declarations of Mr. Jason S. Sadofsky (Ex. 1072; Ex. 1082).

In its patent owner response, PersonalWeb counters that Kantor is not a "printed publication." PO Resp. 13-19. In particular, PersonalWeb alleges that EMC has not established that the specific version of Kantor existed prior to the critical date. *Id.* at 14. PersonalWeb contends that there is no evidence that Kantor was disseminated publicly, catalogued, or indexed in a meaningful way. *Id.* at 14-15. It is PersonalWeb's view that EMC fails to establish that one with ordinary skill in the art, exercising reasonable diligence, would have located Kantor prior to the critical date. *Id.* at 13.

We have reviewed the parties' arguments and supporting evidence. Based on the evidence before us, we are not persuaded by PersonalWeb's arguments. Rather, we determine that EMC has demonstrated by a preponderance of the evidence that Kantor is a "printed publication" within the meaning of 35 U.S.C. § 102(b).

The determination of whether a given reference qualifies as a prior art "printed publication" involves a case-by-case inquiry into the facts and circumstances surrounding the reference's disclosure to members of the public. *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). The key inquiry is whether the reference was made "sufficiently accessible to the public interested in the art" before the critical date. *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989); *In re Wyer*, 655 F.2d 221, 226 (CCPA 1981).

"A given reference is 'publicly accessible' upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it." *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006).

Indexing is not "a necessary condition for a reference to be publicly accessible," but it is only one among many factors that may bear on public accessibility. *In re Lister*, 583 F.3d 1307, 1312 (Fed. Cir. 2009). In that regard, "while often relevant to public accessibility, evidence of indexing is not an absolute prerequisite to establishing online references . . . as printed publications within the prior art." *Voter Verified, Inc. v. Premier Election Solutions, Inc.*, 698 F.3d 1374, 1380 (Fed. Cir. 2012).

Contrary to PersonalWeb's assertion that Kantor did not exist prior to the critical date and there is no evidence that Kantor was disseminated publicly, Kantor itself shows a copyright date of "1988-1993" and a posted date of "1993 August 10." Ex. 1004, Title Page, the first page after the Title Page ("All of the programs and documents, comprising the entire contents of this Authenticity Verification Zip file FWKCS122.ZIP, together with this Zipfile itself, are, in accordance with their respective dates of creation or revision, (C) Copyright Frederick W. Kantor 1988-1993."). Kantor also states:

The FWKCS(TM) Contents_Signature System has become a robust platform for supporting contents_signature functions. FWKCS provides many functions and options for application in a public, commercial, school, institutional, or governmental

environment. Extensive technical support is of special value in helping such users to benefit more fully from these many features.

Registered FWKCS hobby BBS users are able to receive a modest amount of assistance, and are invited to participate in the FWKCS conference on The Invention Factory BBS, echoed via Execuet.

Commercial, school, institutional, and governmental users, with their special support needs, are invited to discuss terms for obtaining such assistance.

. . . .

To get a new version of FWKCS, download FWKCSnnn.ZIP from The Invention Factory BBS, where nnn is the new version number without a decimal point. These special downloads are available at no fee, from a 43_line hunt_up group of USR Dual Standard modems, at 2400-16800 bits/sec (including V32.bis).

Ex. 1004, 158-159. It is clear from Kantor that, during the 1988-1993 timeframe, Dr. Kantor had posted many versions of his software and user manual—including Kantor (version 1.22),, the version relied upon by EMC (Ex. 1004)—on electronic Bulletin Board Systems.

Mr. Sussell, the co-owner and system operator of the Invention Factory Bulletin Board System, testifies that the Invention Factory Bulletin Board System is a computer system that allows users to share files, messages, and articles, as well as search, upload, and download files. Ex. 1041 ¶¶ 3-4. According to Mr. Sussell, he and his wife launched the Invention Factory Bulletin Board System in 1983, and it had over 3,000 subscribers by mid-1993. *Id.* ¶ 6. Mr. Sussell testifies that, by 1993, the

system provided all users keyword search functionality and access to various descriptive and meaningful directories. *Id.* \P 8-10.

More importantly, Mr. Sussell testifies that the Invention Factory Bulletin Board System "extensively utilized and hosted current versions of FWKCS software on its [Bulletin Board System]," and "made publicly accessible and available the complete FWKSC ZIP file that contained both the software as well as related documentation such as user manuals" prior to the critical date. *Id.* ¶ 15; *see id.* ¶¶ 16-27. Specifically, Mr. Sussell testifies that users would have found Kantor by performing keyword searches on the Invention Factory Bulletin Board System. *Id.* ¶ 21. Mr. Sussell also indicates that the Invention Factory Bulletin Board System advertised Dr. Kantor's software to its users by including information about Dr. Kantor's software on the "Welcome" screen, and made the FWKCS Zip file available in four different directories. *Id.* ¶¶ 18-20. Mr. Sussell further testifies that computer disks that contain the FWKCS Zip file were distributed at various Bulletin Board System conferences. *Id.* ¶ 18.

Mr. Sadofsky, a technology archivist and software historian, testifies that he personally verified the authenticity of Kantor—the user manual (version 1.22), the version relied upon by EMC (Ex. 1004)—by comparing it with a "1993 archived" version, and determined that Kantor is identical to the "1993 archived" version. Ex. 1072 ¶¶ 14-17. Mr. Sadofsky testifies that the source file of the "1993 archived" version has a timestamp of August 10, 1993, at 1:22 AM. *Id.* ¶ 16; Ex. 1082 ¶¶ 10-11; Ex. 2014 ¶ 5. According to Mr. Sadofsky, Kantor was publicly accessible prior to the critical date. *Id.*

PersonalWeb also asserts that Kantor was buried and hidden in the zip file in a manner such that "it would not have been located and accessed by persons interested and ordinarily skilled in the art exercising reasonable diligence even if they had access to the ZIP file." PO Resp. at 17-18 (citing Ex. 2014). However, PersonalWeb's supporting evidence, Mr. Thompson's declaration (Ex. 2014), does not substantiate PersonalWeb's assertion. Upon review of Mr. Thompson's declaration, we observe that Mr. Thompson downloaded the FWKCS Zip file—the zip file that contains the software and Kantor, the user manual—without any difficultly. Ex. 2014 ¶ 5. Significantly, Mr. Thompson did not follow the instructions provided with the zip file, nor did he use the appropriate computer environment (DOS) 3.0 or an IBM OS/2 2.0) that was used normally in 1993-1994 timeframe, but instead he used non-compatible software (DOS 8.0 and 32-bit Windows XP operating system that was released in 2001). Ex. 2014 ¶¶ 6-11; Ex. 1082 ¶¶ 5, 14. Once he followed the instructions and unzipped the FWKCS Zip file, Mr. Thompson located Kantor without difficulty. Ex. 2014 ¶¶ 20-22.

Mr. Sadofsky confirms that the README.TXT file provides simple instructions and, if a user follows the instructions and uses the operating system that was used normally in 1993-1994 timeframe, the user could locate Kantor without difficulty. Ex. 1082 ¶¶ 13-17. In fact, Mr. Sadofsky demonstrated, in his declaration, several relatively easy ways for a user to access Kantor—with or without installing the software, and with or without help screens. Ex. 1082 ¶¶ 8-16 (II. README.TXT); ¶¶ 17-20 (III. GETLOOK.BAT); ¶¶ 21-22 (IV. FWKCS122 Start Screen and In-

Program Help). Based on the evidence before us, we determine that Kantor was available to the extent that persons interested and ordinarily skilled in the art, exercising reasonable diligence, could locate it.

PersonalWeb's argument that EMC's witnesses personally did not post or review Kantor prior to the critical date also is unavailing. PO Resp. 14-16 (citing Ex. 2015, 52-55; Ex. 2013, 29-30; Ex. 2016, 98). It is well settled that it is not necessary for the witnesses to have reviewed the reference personally prior to the critical date in order to establish publication. See In re Hall, 781 F.2d 897, 899 (Fed. Cir. 1986) (concluding "that competent evidence of the general library practice may be relied upon to establish an approximate time when a thesis became accessible"); Wyer, 655 F.2d at 226 (Notwithstanding that there is no evidence concerning actual viewing or dissemination of any copy of the Australian application, the court held that "the contents of the application were sufficiently accessible to the public and to persons skilled in the pertinent art to qualify as a 'printed publication."); In re Bayer, 568 F.2d 1357, 1361 (CCPA 1978) (A reference constitutes a "printed publication" under 35 U.S.C. § 102(b) as long as a presumption is raised that the portion of the public concerned with the art would know of the invention.).

The evidence on this record clearly support that Kantor was posted on a publicly accessible site—the Invention Factory Bulletin Board System—well known to those interested in the art, and could be downloaded and retrieved from that site, and, therefore, Kantor, an electronic publication, is considered a "printed publication" within the meaning of 35 U.S.C.

§ 102(b). See Wyer, 655 F.2d at 226 (An electronic publication, including an on-line database or Internet publication, is considered to be a "printed publication" "upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it and recognize and comprehend therefrom the essentials of the claimed invention without need of further research or experimentation.").

For the foregoing reasons, we determine that EMC has demonstrated by a preponderance of the evidence that Kantor is a "printed publication" within the meaning of 35 U.S.C. § 102(b). Therefore, EMC may rely upon Kantor for its asserted ground of unpatentability under 35 U.S.C. § 103(a).

D. EMC's Motion to Exclude

EMC seeks to exclude the following exhibits: (1) three license agreements (Exs. 2010-12); (2) Mr. Bermeister's declarations (Exs. 2009, 2018) relating to those license agreements; and (3) Mr. Thompson's declaration (Ex. 2014). Paper 50 ("Pet. Mot."). PersonalWeb filed the license agreements and Mr. Bermeister's declarations as evidence of non-obviousness to rebut EMC's assertion that claim 30 would have been obvious over the combination of Kantor and Satyanarayanan. PO Resp. 12-13. As to Mr. Thompson's declaration, PersonalWeb proffered that evidence to support its assertion that Kantor—a user manual that was disseminated publicly with the software in a zip file—was not made

sufficiently accessible to a person interested and ordinarily skilled in the art. *Id.* at 16-18. PersonalWeb opposes EMC's motion to exclude. Paper 56. In response, EMC filed a reply to PersonalWeb's opposition to its motion to exclude. Paper 59.

With respect to the license agreements and Mr. Bermeister's declarations (Exs. 2009-2012, 2018), EMC argues that they are irrelevant under Federal Rule of Evidence 402², highly prejudicial, confusing, and misleading under Federal Rule of Evidence 403. *Id.* at 8-13. As to Mr. Thompson's declaration, EMC argues that it should be excluded under Federal Rule of Evidence 402. *Id.* at 14-15. Specifically, EMC alleges that: (1) Mr. Thompson does not possess the skill of a person of ordinary skill in the art (*id.* at 14-15 (citing Ex. 1077, 13-14)); (2) Mr. Thompson did not use compatible software from the relevant time period (*id.* at 15 (citing Ex. 1077, 40-41; Ex. 2014, 4, 6)); and (3) Mr. Thompson did not follow the instructions provided with the zip file (*id.* at 15 (citing Ex. 1077, 32-35)).

The current situation does not require us to assess the merits of EMC's motion to exclude. As discussed above, even without excluding PersonalWeb's supporting evidence, we have determined that Kantor is a "printed publication" under 35 U.S.C. § 102(b), and EMC has demonstrated, by a preponderance of the evidence, that claim 30 is unpatentable over the combination of Kantor and Satyanarayanan.

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² As stated in 37 C.F.R. § 42.62, the Federal Rules of Evidence generally apply to proceedings, including *inter partes* reviews.

Accordingly, EMC's motion to exclude evidence is dismissed as moot.

E. PersonalWeb's Motion to Exclude

PersonalWeb seeks to exclude the following items of evidence: (1) Kantor (Ex. 1004); (2) certain documents (Exs. 1038-1040, 1043-1046, 1065, 1066, 1074-1076) and the declarations of Messrs. Sussell and Sadofsky (Exs. 1041, 1072, 1082) regarding those documents; (3) the declarations of Messrs. Sussell and Sadofsky regarding Kantor (Exs. 1041, 1072, 1082) and Mr. Sadofsky's deposition (Ex. 2013, 30, 66); and (4) Clark's rebuttal declaration (Ex. 1083 ¶¶ 26-27, 30). Paper 50 ("PO Mot.").

EMC opposes PersonalWeb's motion to exclude. Paper 57 ("Opp."). In response, PersonalWeb filed a reply to EMC's opposition to its motion to exclude. Paper 60 ("PO Reply"). For the reasons stated below, PersonalWeb's motion to exclude is *denied*.

Kantor

PersonalWeb alleges that Kantor should be excluded as unauthenticated and inadmissible hearsay under Federal Rules of Evidence 901 and 902. PO Mot. 1, 6. In particular, PersonalWeb argues that "[n]o witness of record has personal knowledge of Kantor existing prior to [the critical date], and electronic data such as Kantor is inherently untrustworthy because it can be manipulated from virtually any location at any time." *Id*.

at 2-4. According to PersonalWeb, the dates provided by Kantor are inadmissible hearsay because Kantor is not self-authenticating. *Id.* at 2, 5-6.

EMC argues that Kantor has been authenticated under Federal Rules of Evidence 901, and that the document is not hearsay, because it is being offered for what it describes—not for the truth of its disclosures. Opp. 1-10. In particular, EMC disagrees with PersonalWeb that Kantor cannot be authenticated without direct testimony from a witness with personal knowledge that Kantor existed prior to the critical date. Opp. 1. EMC asserts that it need "only produce evidence 'sufficient to support a finding' that the reference 'is what the proponent claims it is.'" *Id.* at 1-2 (citing Fed. R. Evid. 901(a)). EMC also contends that testimony from Messrs. Sussell and Sadofsky provides sufficient evidence to authenticate Kantor. Opp. 1-5 (citing Exs. 1041, 1072, 1082).

In its reply, PersonalWeb argues that Federal Rules of Evidence identified by EMC are not applicable to Kantor, because Mr. Sussell did not post or review Kantor prior to critical date. PO Reply 1-5 (citing Ex. 2015, 32-36, 55, 55, 65). PersonalWeb also alleges that Kantor's authenticity is suspicious, as electronic data are inherently untrustworthy and there is no chain of custody. *Id*.

We have considered PersonalWeb's arguments as well as EMC's contentions and supporting evidence. We are not persuaded that Kantor should be excluded.

At the outset, we disagree with PersonalWeb's position that a witness cannot authenticate a document, unless the witness is the author of the

document or the witness has reviewed the document prior to the critical date. Federal Rule of Evidence 901(a) states that the authentication requirement is satisfied if the proponent presents "evidence sufficient to support a finding that the item is what the proponent claims it is." Therefore, neither a declaration from the author, nor evidence of someone actually viewing the document *prior to critical date*, is required to support a finding that the document is what it claims to be. *See also Hall*, 781 F.2d at 899 (concluding "that competent evidence of the general library practice may be relied upon to establish an approximate time when a thesis became accessible."); *Wyer*, 655 F.2d at 226 (Notwithstanding that there is no evidence concerning actual viewing or dissemination of any copy of the Australian application, the court held that "the contents of the application were sufficiently accessible to the public and to persons skilled in the pertinent art to qualify as a 'printed publication."").

Further, it is well settled that an uninterrupted chain of custody is not a prerequisite to admissibility, but rather gaps in the chain go to weight of the evidence. *U.S. v. Wheeler*, 800 F.2d 100, 106 (7th Cir. 1986); *see also U.S. v. Aviles*, 623 F.2d 1192, 1198 (7th Cir. 1980) ("If the trial judge is satisfied that in reasonable probability the evidence has not been altered in any material respect, he may permit its introduction.") (Citation omitted). There is a strong public policy for making all information filed in a quasi-judicial administrative proceeding available to the public, especially in an *inter partes* review, which determines the patentability of a claim in an

issued patent. It is within the Board's discretion to assign the appropriate weight to be accorded to evidence.

Although Messrs. Sussell and Sadofsky personally did not post or review the particular version of Kantor—version 1.22, the version relied upon by EMC (Ex. 1004)—prior to the critical date, they have sufficient personal knowledge and working experience to provide competent testimony to establish the publication and authentication of Kantor. *See Hall*, 781 F.2d at 899; *Wyer*, 655 F.2d at 226; *Bayer*, 568 F.2d at 1361.

Notably, Mr. Sussell, the co-founder and system operator of the Invention Factory Bulletin Board System, testifies that Dr. Kantor released the first version of his software on the Invention Factory Bulletin Board System in the 1980s, and the system continuously utilized and hosted current versions of the software and user manuals. Ex. 1041 ¶¶ 3, 13, 15. Mr. Sussell also testifies that the Invention Factory Bulletin Board System advertised Dr. Kantor's software to its users by including information about Dr. Kantor's software on the "Welcome" screen, and made FWKCS Zip file—a zip file that contains both the software and user manual—publicly accessible and available under four different directories. *Id.* ¶ 18. According to Mr. Sussell, the Invention Factory Bulletin Board System had over 3,000 subscribers, in the 1993 timeframe, and all of the users had the capability to perform keyword searches to retrieve FWKCS Zip file. *Id.* ¶¶ 6, 21.

Although we are cognizant that electronic documents downloaded from websites normally are not self-authenticating, it has been recognized

that "[t]o authenticate printouts from a website, the party proffering the evidence must produce some statement or affidavit from someone with knowledge of the website . . . for example a web master or someone else with personal knowledge would be sufficient." St. Luke's Cataract and Laser Institute v. Sanderson, 2006 WL 1320242, *2 (M.D. Fla. 2006) (citing In re Homestore.com, Inc. Sec.Litig., 347 F. Supp. 2d 769, 782 (C.D. Cal. 2004)) (quotation marks omitted); Ex. 2024; see also Market-Alerts Pty. Ltd. v. Bloomberg Finance L.P., 922 F. Supp. 2d 486, 493, n.12 (D. Del. 2013) (citing Keystone Retaining Wall Sys., Inc. v. Basalite Concrete Prods., LLC, 2011 WL 6436210, at *9 n.9 (D. Minn. 2011)) (documents generated by a website called the Wayback Machine have been accepted generally as evidence of prior art in the patent context); U.S. v. Bansal, 663 F.3d 634, 667-68 (Fed. Cir. 2011) (concluding that the screenshot images from the Internet Archive were authenticated sufficiently under Federal Rule of Evidence 901(b)(1) by a witness with personal knowledge of its contents, verifying that the screenshot the party seeks to admit are true and accurate copies of Internet Archive's records).

Here, Mr. Sadofsky, who is a technology archivist and software historian and currently is an archivist for the Internet Archive, testifies that he launched the website textfiles.com and a subdomain cd.textfiles.com to collect software, data files, and related materials from Bulletin Board Systems. Ex. 1072 ¶¶ 9-11. According to Mr. Sadofsky, textfiles.com and cd.textfiles.com are dedicated to preserving, archiving, and providing free access to unaltered historical software programs and information that

initially were made available on the Bulletin Board System. *Id.* Mr. Sadofsky states that he previously archived the FWKCS Zip file (FWKCS122.ZIP) that contains Dr. Kantor's software and user manual to cd.textfiles.com from his own copy of the *Simtel MSDOS Archive*, October 1993 Edition, Walnut Creek CD-ROM. *Id.* ¶ 14 (citing Ex. 1048). Mr. Sadofsky also testifies that he personally verified the authenticity of Kantor—version 1.22, the version relied upon by EMC (Ex. 1004)—by comparing it with the "1993 archived" version and determined that Kantor is identical to the "1993 archived" version. Ex. 1072 ¶¶ 13-15. Mr. Sadofsky confirms that the source file of the "1993 archived" version has a timestamp of August 10, 1993, at 1:22 AM. *Id.* ¶ 16; Ex. 1082 ¶¶ 10-11; Ex. 2014 ¶ 5. Mr. Sadofsky concludes that Kantor was publicly accessible prior to the critical date. Ex. 1072 ¶¶ 13, 16.

Moreover, we agree with EMC that Kantor also has been authenticated as an "ancient document" under Federal Rule of Evidence 901(b)(8). Opp. 7 Kantor is "at least 20 years old and can be found in . . . an October 1993 *Simtel* CD-ROM – a place where an authentic 20-year old document distributed through a [Bulletin Board System] would likely be." *Id.*; Ex. 1072 ¶¶ 7-8; *see also* Fed. R. Evid. 901(b)(8) 2012 Adv. Comm.

³ Fed. R. Evid. 901(b)(8). Evidence About Ancient Documents or Data Compilations. For a document or data compilation, evidence that it:

⁽A) is in a condition that creates no suspicion about its authenticity;

⁽B) was in a place where, if authentic, it would likely be; and

⁽C) is at least 20 years old when offered.

Note ("The familiar ancient document rule of the common law is extended to include data stored electronically or by other similar means."). Moreover, testimony of Messrs. Sussell and Sadofsky has established sufficiently that Kantor is in a condition that creates no suspicion about its authenticity. Exs. 1041, 1072, 1082.

PersonalWeb does not present sufficient or credible evidence to the contrary. Based on the evidence before us, we determine that Kantor has been authenticated under Federal Rules of Evidence 901(b)(1), (b)(3), (b)(4), and (b)(8) to warrant its admissibility.

PersonalWeb's hearsay argument regarding Kantor also is unavailing. As EMC notes (Opp. 8), a "prior art document submitted as a 'printed publication' under 35 U.S.C. § 102(a) is offered simply as evidence of what it described, not for proving the truth of the matters addressed in the document." *See, e.g., Joy Techs., Inc. v. Manbeck*, 751 F. Supp. 225, 233 n.2 (D.D.C. 1990), *judgment aff'd*, 959 F.2d 226 (Fed. Cir. 1992); Fed. R. Evid. 801(c) 1997 Adv. Comm. Note ("If the significance of an offered statement lies solely in the fact that it was made, no issue is raised as to the truth of anything asserted, and the statement is not hearsay."). Therefore, Kantor is not hearsay under Federal Rule of Evidence 801(c).

We further agree with EMC that the posted date of "1993 August 10" or the copyright date of "1988-1993" on the Title page of Kantor is not a basis for excluding Kantor, as testimony from Messrs. Sussell and Sadofsky sufficiently establishes that Kantor existed as of August 10, 1993, prior to the critical date. Opp. 8. More importantly, the computer-generated

timestamp—August 10, 1993, at 1:22 AM—of the "1993 archived" version of Kantor (Ex. 1072 ¶¶ 14-15; Ex. 1082 ¶¶ 10-11; Ex. 2014 ¶ 5) also independently corroborates Kantor's existence as of August 10, 1993. *See, e.g., U.S. v. Khorozian*, 333 F.3d 498, 506 (Fed. Cir. 2003) (concluding that an automatically generated time stamp on a fax was not a hearsay statement because it was not uttered by a person). Accordingly we are not persuaded that PersonalWeb has presented a sufficient basis to exclude Kantor as impermissible hearsay.

For the foregoing reasons, we decline to exclude Kantor.

PersonalWeb asserts that certain documents submitted by EMC (Exs. 1038-1040, 1043-1046, 1065, 1066, 1074-1076) and the declarations of Messrs. Sussell and Sadofsky (Exs. 1041, 1072, 1082) regarding those documents should be excluded because the documents have not been authenticated properly and are inadmissible hearsay. PO Mot. 6-9. PersonalWeb argues that EMC "has not established that any of these documents existed prior to the critical date, and no witness has personal knowledge of their alleged existence prior to April 11, 1995." *Id.* at 7. PersonalWeb further maintains that the documents that are Exhibits 1044, 1045, 1065, and 1066 are irrelevant, prejudicial, and confusing, as they discuss a version of Kantor different than the version relied upon by EMC (version 1.22, Ex. 1004). *Id.* at 8-9.

EMC responds that its witnesses provided those "documents to corroborate their independent knowledge and recollections." Opp. 10. EMC asserts that the documents have been authenticated under Federal Rules of Evidence 901-902 and fall within a hearsay exception under Federal Rules of Evidence 803-807. *Id.* at 10-12. We are persuaded by EMC's arguments.

As the movant, PersonalWeb has the burden of proof to establish that it is entitled to the requested relief. 37 C.F.R. § 42.20(c). As discussed previously, we disagree with PersonalWeb that documents cannot be authenticated without direct testimony from the author or a witness who actually reviewed the documents prior to the critical date. See Fed. R. Evid. 901(a). Significantly, PersonalWeb's motion does not contain any sufficient explanation why each document should be excluded. For instance, PersonalWeb does not explain adequately why the declaration of Mr. Sussell (Ex. 1041 ¶¶ 6, 8, 18, 27) is not sufficient to authenticate Exhibits 1043-1046, 1065, and 1066, or why the declarations of Mr. Sadofsky (Ex.1072 ¶¶ 7-17; Ex. 1087 ¶¶ 10-16) are not sufficient to authenticate Exhibits 1038-40 and 1074-1076. See Fed. R. Evid. 901(b)(1).4 Nor does PersonalWeb explain sufficiently why the following documents are not selfauthenticated: (1) Exhibits 1038-1040 and 1043 that include articles containing LexisNexis® trade inscriptions; (2) Exhibits 1065 and 1066 that include Usenet newsgroup periodicals containing Usenet trade inscriptions;

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⁴ Fed. R. Evid. 901(b)(1). Testimony of a Witness with Knowledge. Testimony that an item is what it is claimed to be.

and (3) Exhibit 1040 that contains a photograph of the *Simtel MSDOS Archive*, October 1993 Edition, Walnut Creek CD-ROM, that has Simtel trade inscriptions. *See* Fed. R. Evid. 902(6)-(7).⁵

In its motion, PersonalWeb fails to identify, specifically, the textual portions of the aforementioned exhibits that allegedly are being offered for the truth of the matter asserted, yet seeks to exclude the entirety of each exhibit. The burden should not be placed on the Board to sort through the entirety of each exhibit and determine which portion of the exhibit PersonalWeb believes to be hearsay. Rather, PersonalWeb should have identified, in its motion, the specific portions of the evidence and provided sufficient explanations as to why they constitute hearsay. Furthermore, PersonalWeb does not explain adequately why the declarations of Messrs. Sussell and Sadofsky do not provide the proper foundation and corroboration for the documents.

To the extent PersonalWeb relies upon the same arguments with respect to Kantor for excluding the documents, we have addressed those arguments above and determined that they are unavailing. We also agree with EMC

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⁵ Fed. R. Evid. 902. Evidence that Is Self-Authenticating The following items of evidence are self-authenticating; they require no extrinsic evidence of authenticity in order to be admitted:

⁽⁶⁾ Newspapers and Periodicals. Printed material purporting to be a newspaper or periodical.

⁽⁷⁾ Trade Inscriptions and the Like. An inscription, sign, tag, or label purporting to have been affixed in the course of business and indicating origin, ownership, or control.

that the documents concerning prior versions of Kantor are relevant, and not prejudicial or confusing, as alleged by PersonalWeb, because such circumstantial evidence provides context and corroboration for the witnesses' independent knowledge and recollection.

Furthermore, we are not persuaded that the declarations of Messrs. Sussell and Sadofsky (Exs. 1041, 1072, 1082) should be excluded. As we discuss below in the next section, Messrs. Sussell and Sadofsky have sufficient personal knowledge and working experience to provide competent testimony to establish the publication and authentication of Kantor. The documents they cite serve to corroborate their independent knowledge and recollection.

For the foregoing reasons, PersonalWeb has not presented a sufficient basis to exclude Exhibits 1038-1040, 1043-1046, 1065, 1066, 1074-1076, as well as the declarations of Messrs. Sussell and Sadofsky (Exs. 1041, 1072, 1082) concerning those Exhibits.

Declarations of Messrs. Sussell and Sadofsky

PersonalWeb argues that the declarations of Messrs. Sussell and Sadofsky (Exs. 1041, 1072, 1082) should be excluded as hearsay under Federal Rule of Evidence 801, and are inadmissible under Federal Rules of Evidence 802-807 for lack of foundation and personal knowledge, and Federal Rule of Evidence 702 as improper testimony, because the witnesses personally did not review Kantor (Ex. 1004) and Simtel (Ex. 1040) prior to the critical date. PO Mot. 9-10. PersonalWeb also argues that Messrs.

Sussell and Sadofsky "are not qualified experts in the field." *Id.* at 11. PersonalWeb further alleges that Mr. Sadofsky's deposition (Ex. 2013, 30, 66) should be excluded, as it was responsive to a leading question and non-responsive to the question. *Id.*

EMC responds that the testimony of Messrs. Sussell and Sadofsky should not be excluded because their testimony is based on their own personal knowledge and recollection, and the documents they cite serve to corroborate their independent knowledge and recollection. Opp. 13. EMC further explains that the witnesses have described thoroughly the underlying facts, and, therefore, the testimony should be admitted as relevant under Federal Rules of Evidence 401-402, supported by personal knowledge and foundation under Federal Rule of Evidence 602, and proper opinion testimony under Federal Rules of Evidence 701-703. *Id.* We find EMC's contentions have merit.

PersonalWeb's arguments rest on the erroneous premise that EMC's witnesses must have reviewed Kantor or Simtel personally prior to the critical date in order to provide competent testimony regarding Kantor or Simtel. As discussed previously, it is well settled that it is not necessary for the witnesses to have reviewed the reference personally prior to the critical date in order to establish publication. *See, e.g., Wyer*, 655 F.2d at 226.

Although Messrs. Sussell and Sadofsky are not experts related to the claimed subject matter of the '662 patent, each witness nevertheless has sufficient personal knowledge and working experience to provide competent testimony. *See Hall*, 781 F.2d at 899. Mr. Sussell was the co-owner and

system operator of the Invention Factory Bulletin Board System from 1983 to 1996. Ex. 1041 ¶ 3. Mr. Sussell's testimony is based on his personal knowledge of the relevant facts related to the Invention Factory Bulletin Board System and Kantor. *Id.* at ¶ 2. Notably, Dr. Kantor specifically thanked Mr. Sussell in his user manual for hosting Dr. Kantor's software FWKCS and for Mr. Sussell's role in its development. Ex. 1004, 3 ("To Michael Sussell, sysop of The Invention Factory (R), home board for the support of FWKCS, for bringing the problem of duplicate files to my attention and for his help in testing"); *id.* at 6 ("When Michael Sussell, sysop of The Invention Factory (R) in New York, brought to my attention the problem of duplicate files with different names, these concepts provided valuable insight into how one might proceed.").

Mr. Sadofsky is a technology archivist and software historian, and works "for the Internet Archive, a non-profit digital library offering free universal access to books, movies, and music, as well as 342 billion archived webpages available through the Wayback Machine service." Ex. 1072 ¶ 3. Mr. Sadofsky also "directed the film, *The BBS Documentary*, an eightepisode documentary about the subculture born from the creation of the [Bulletin Board System]." *Id.* at ¶ 4. Mr. Sadofsky's testimony is based on his personal knowledge of the relevant facts related to Kantor and the "1993 archived" version of Kantor. *Id.* at ¶ 2; Ex. 1087 ¶ 2. For example, Mr. Sadofsky personally verified the authenticity of Kantor by comparing it with the "1993 archived" version, and determined that Kantor—version 1.22, the

version relied upon by EMC (Ex. 1004)—is identical to the "1993 archived" version. Ex. 1077 ¶¶ 14-15.

Upon review of the evidence on the record, we agree with EMC that both Messrs. Sussell and Sadofsky have disclosed sufficient underlying facts to support their testimony. For instance, the computer-generated timestamp—August 10, 1993, 1:22 AM—associated with the "1993 archived" version of Kantor corroborates their testimony regarding Kantor's existence as of August 10, 1993. Ex. 1072 ¶¶ 14-15; Ex.1082 ¶¶ 10-11; Ex. 2014 ¶ 5.

As to Mr. Sadofsky's deposition (Ex. 2013, 30, 66), PersonalWeb does not explain sufficiently why that testimony should be excluded. PO Mot. 11. Moreover, Mr. Sadofsky's deposition (Ex. 2013, 30, 66) is consistent with his direct testimony (Ex. 1072 ¶¶ 14-16), and, therefore, it would not prejudice PersonalWeb even if such evidence is not excluded.

For the foregoing reasons, PersonalWeb has not presented a sufficient basis to exclude the declarations of Messrs. Sussell and Sadofsky (Exs. 1041, 1072, 1082) and Mr. Sadofsky's deposition (Ex. 2013, 30, 66).

Clark's Rebuttal Declaration

PersonalWeb contends that statements in Dr. Clark's rebuttal declaration (Ex. 1083, 3:5-6, 8:5-10) contradict prior positions or arguments of EMC and should be excluded. PO Mot. 11-12. EMC counters that Dr. Clark's rebuttal declaration does not contradict earlier positions, and that Dr. Clark's positions have been the same throughout this proceeding. Opp. 13-

14.

We agree with EMC that Dr. Clark's rebuttal testimony regarding the attempt to delete begins with the generation of the MULTIS list and concludes with the running of the fwkc17d command has remained consistent throughout this proceeding. Dr. Clark testified that "Kantor further discloses a command for generating a cs-list called "MULTIS" that lists duplicate files on the system," and "[a]nother command, "FWKC17D", processes the MULTIS list to find the lines with contents-signatures that the system operator had previously marked with the "dflag" status and deletes those files." Ex. 1009 ¶ 45. In the rebuttal declaration, Dr. Clark testifies that "[i]n an attempt to delete this particular file, the sysop would generate the MULTIS file, mark the particular file with a 'd', and run the fwkc17d command to complete the deletion attempt." Ex. 1083 ¶ 12. We are not persuaded that this is an inconsistent position. Given that PersonalWeb acknowledges that EMC's petition cited to paragraph 45 of Dr. Clark's original declaration (PO Mot. 12), we cannot conclude that EMC's prior positions or arguments are inconsistent with Dr. Clark's rebuttal declaration.

For the foregoing reasons, we decline to exclude Dr. Clark's rebuttal declaration (Ex. 1083).

III. CONCLUSION

EMC has met its burden of proof, by a preponderance of the evidence, in showing that claim 30 of the '662 Patent is unpatentable based on the following ground of unpatentability:

Claim	Basis	References
30	§ 103(a)	Kantor and Satyanarayanan

IV. ORDER

In consideration of the foregoing, it is

ORDERED that claim 30 of the '662 Patent is held unpatentable;

FURTHER ORDERED that EMC's Motion to Exclude Evidence is *dismissed*;

FURTHER ORDERED that PersonalWeb's Motion to Exclude Evidence is *denied*; and

FURTHER ORDERED that, because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

Case IPR2013-00086 Patent 7,949,662 B2

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