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Paper 37
Entered: July 8, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JACK HENRY and ASSOCIATES, INC.,
Petitioner,

v.

DATATREASURY CORP.,
Patent Owner.

CBM2014-00057
Patent 5,910,988 C1

Before MICHAEL P. TIERNEY, WILLIAM V. SAINDON, and MATTHEW R. CLEMENTS, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

DECISION

Final Written Decision
35 U.S.C. § 328(a) and 37 C.F.R. § 42.73

Denying Patent Owner's Motion to Exclude
37 C.F.R. § 42.64(c)

I. INTRODUCTION

We have jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is entered pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73.

With respect to the grounds asserted in this trial, we have considered the papers submitted by the parties and the evidence cited therein. For the reasons discussed below, we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 2, 16, 18, 26, 27, 42, and 46 of U.S. Patent No. 5,910,988 C1 (Ex. 1001, "the '988 patent") are unpatentable, but has not shown that claims 29, 36, and 38 are unpatentable. In addition, for the reasons discussed below, we deny Patent Owner's Motion to Exclude.

A. Procedural History

Petitioner filed a corrected petition (Paper 4, "Pet.") requesting a covered business method patent review of claims 1, 2, 16, 18, 26, 27, 29, 36, 38, 42, and 46 of the '988 patent over four proposed grounds of unpatentability. *See* Pet. 25, 41, 50, and 69. Patent Owner filed a preliminary response. Paper 9. Reviewing the arguments and evidence then before us, we issued a Decision Instituting Covered Business Method Review (Paper 17, "Dec. Inst."), instituting review on all challenged claims over two of the four proposed grounds of unpatentability. Dec. Inst. 18.

Patent Owner subsequently filed a Response to the Petition (Paper 22, "PO Resp."), to which Petitioner filed a Reply (Paper 23, "Pet. Reply") including the testimony of William R. Michalson, Ph.D (Ex. 1026). Upon the request of the parties, an Oral Hearing was held. *See* Paper 36 (transcript of the Hearing, cited as "Tr.").

Patent Owner filed a Motion to Exclude certain evidence. Paper 27 ("PO Mot. Excl."). Petitioner filed an opposition to that motion (Paper 28, "Pet. Opp. Mot. Excl."), to which Patent Owner filed a reply (Paper 33, "PO Reply Mot. Excl.").

B. Related Matters

Petitioner indicates that the '988 patent is asserted in a district court action titled *DataTreasury Corp. v. Jack Henry & Assoc., Inc.*, No. 2:13-cv-00433 (E.D. Tex.). Pet. 16 (citing Ex. 1023); Exhibit 1023. Petitioner also identifies a number of other district court proceedings involving the '988 patent. Pet. 16; Ex. 1023. The '988 patent is the subject of an ongoing *ex parte* reexamination proceeding, 90/012,537,[1] as well as a number of proceedings before this Board, including *Fidelity National Information Services, Inc. v. DataTreasury Corp.*, Case CBM2014-00021 (PTAB) ("Fidelity CBM")[2] and *Fiserv, Inc. v. DataTreasury Corp*, Case CBM2014-00087 (PTAB).[3] Paper 7; Paper 8; Paper 35.

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[1] Claims 42, 46–50, 84, 88–92, 97–102, 106–110, 114–117, 121, and 122 of the '988 patent are subject to the reexamination and were finally rejected in an office action mailed April 24, 2014. Paper 10. The prior art asserted in the reexamination is different from the prior art asserted in this proceeding. Further, only claims 42 and 46 are involved in both proceedings.

[2] In the Fidelity CBM proceeding, a final written decision was issued on April 29, 2015 determining claims 1–123 of the '988 patent to be unpatentable under 35 U.S.C. §§ 101 and 112, first paragraph.

[3] In CBM2014-00087, we instituted a covered business method review of claims 1, 2, 16, 18, 22, 25, 26, 29, 36, 38–42, 45–49, 55, 58–60, 64, 66–70, 73–75, 78, 80, 82–84, 88–91, 102, 105–110, and 114–123 of the '988 patent as anticipated by Campbell under 35 U.S.C. § 102. We have yet to issue a final written decision in that proceeding.

C. The '988 Patent

The '988 patent is directed to a system for remote data acquisition and centralized processing and storage of the acquired data. Ex. 1001, Abstract. An object of the invention is to provide an automated system to manage and store captured electronic and paper transactions from various activities including banking and consumer applications. *Id.* at 3:30–35. Generally, the '988 patent describes scanning documents using a scanner attached to a general purpose network computer that is connected via a carrier cloud to a server that inserts images and data received into a database. *Id.* at Figs. 1–2, 3:30–51, 4:60–67, 5:40–45, 16:38–45. Additionally, the general purpose network computer encrypts the images and data to provide a system with maximal security. *Id.* at 3:30–35, 7:31–35, 8:3–5.

Figure 1 of the '988 patent, provided below, depicts a preferred embodiment of the system having three major operational elements:

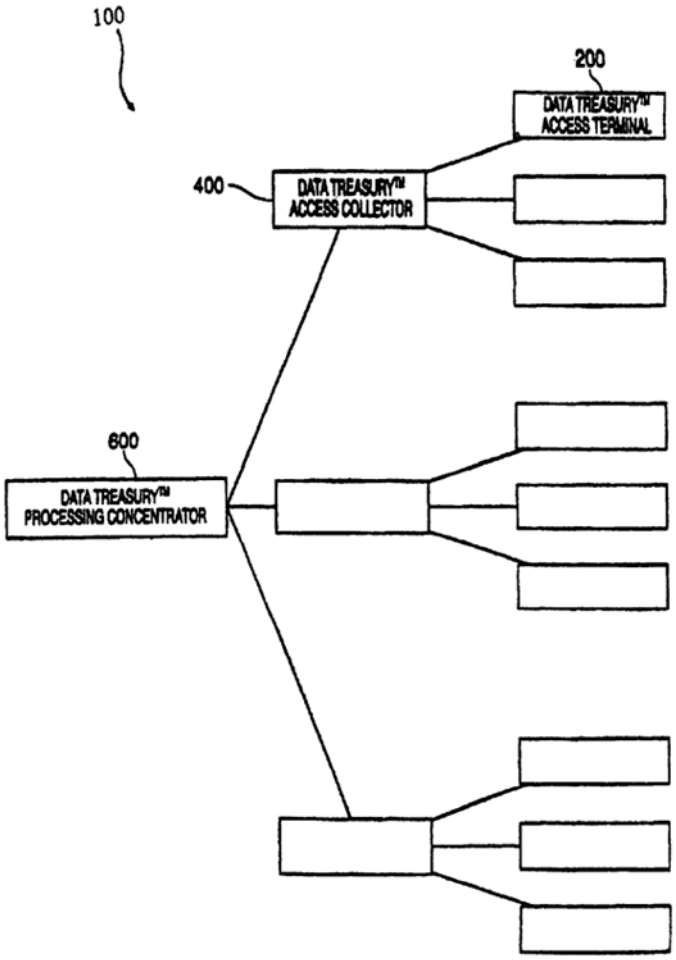

FIG. 1 (Amended)

The ’988 patent describes the tiered arrangement depicted in Figure 1 as follows:

> FIG. 1 shows the architecture of the DataTreasury™ System 100. The DataTreasury™ System 100 has three operational elements: the DataTreasury™ System Access Terminal (DAT) 200 (the remote data access subsystem), the DataTreasury™ System Access Collector (DAC) 400 (the intermediate data collecting subsystem), and the DataTreasury™ System Processing Concentrator (DPC) 600 (the central data processing subsystem).

Id. at 4:60–67.

Figure 2 of the ’988 patent, provided below, depicts a block diagram of the DAT:

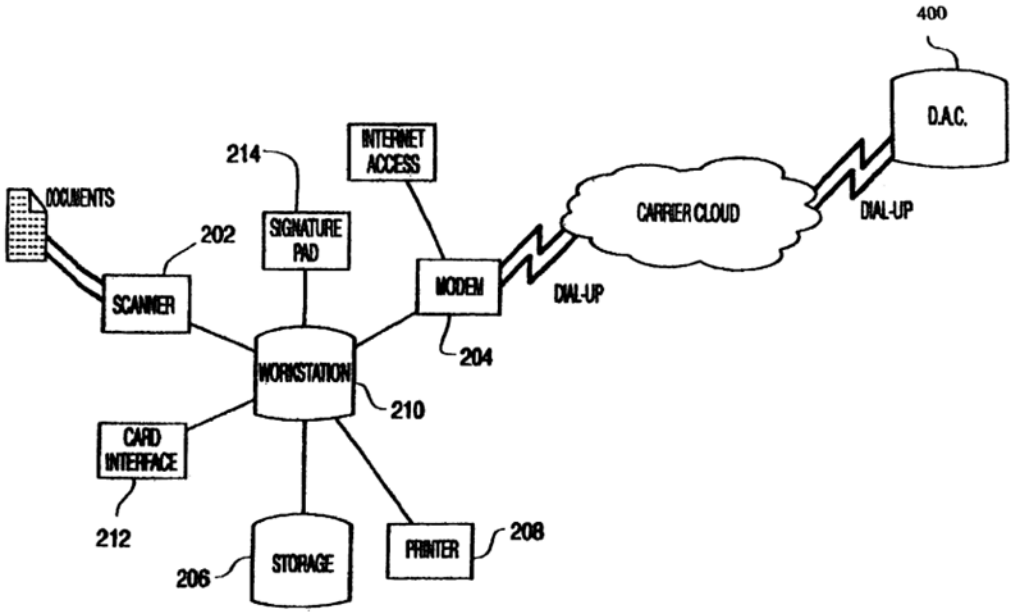

FIG. 2 (Amended)

As shown in Figure 2, scanner 202 is connected to workstation 210, which is connected to data system access collector 300. The workstation can be a general purpose computer and performs tasks including compressing, encrypting, and tagging a scanned bitmapped image. *Id.* at 5:40–45, 7:31–35.

The ’988 patent is said to improve upon the prior art by providing an automated, reliable, secure system to process electronic and paper transactions. *Id.* at 3:25–29.

D. Illustrative Claims

Of the challenged claims, claims 1, 26, 42, and 46 are independent. Claim 1 is directed to an aspect of the ’988 patent involving various subsystems and including encrypted subsystem identification information.

Claim 42 is directed to an aspect of the ’988 patent involving remote, intermediate, and central subsystems each having a local area network. These two independent claims are illustrative, and are reproduced below.

> 1. A system for central management, storage and report generation of remotely captured paper transactions from documents and receipts comprising:
> one or more remote data access subsystems for capturing and sending paper transaction data and subsystem identification information comprising at least one imaging subsystem for capturing the documents and receipts and at least one data access controller for managing the capturing and sending of the transaction data;
> at least one central data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information comprising a management subsystem for managing the processing, sending and storing of the of the transaction data; and
> at least one communication network for the transmission of the transaction data within and between said one or more data access subsystems and said at least one data processing subsystem, with the data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem.
>
> 42. A communication network for the transmission of data within and between one or more remote data processing subsystems, at least one intermediate data collecting subsystem and at least one central subsystem forming a tiered architecture wherein each of said at least one central data processing subsystem communicate with a corresponding some of said at least one data collecting subsystem and each of said at least one data collecting subsystem communicate with a corresponding some of said one or more data processing subsystems, said data

processing subsystem including an imaging subsystem for capturing images of documents and receipts, comprising:

at least one first local area network for transmitting data within a corresponding one of said one or more remote subsystems;

at least one second local area network for transmitting data within a corresponding one of said at least one intermediate subsystem;

at least one third local area network for transmitting data within a corresponding one of said at least one central subsystem; and

at least one wide area network for transmitting data between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem.

E. Asserted Grounds and Prior Art

A covered business method patent review was instituted on the following grounds and prior art:

Reference(s)	**Basis**	**Claims Challenged**
Campbell[4]	§ 102	1, 2, 18, 26, 29, 36, and 46
Campbell and Blackwell[5]	§ 103	1, 16, 26, 27, 38, and 42

II. ANALYSIS

A. The '988 Patent is a Covered Business Method Patent

Patent Owner argues that the '988 patent is not eligible for covered business method patent review because one or more of its claims are

[4] U.S. Patent No. 5,373,550, issued Dec. 13, 1994 (Ex. 1018).

[5] U.S. Patent No. 5,602,933, issued Feb. 11, 1997 (Ex. 1019).

directed to a technological invention. PO Resp. 9–15. We have discussed whether the '988 patent is eligible for covered business method patent review at length in our Decision to Institute and Final Written Decision in the Fidelity CBM. *See* Fidelity CBM, Paper 14, 9–13; Fidelity CBM, Paper 34, 8–10. For the same reasons as those we expressed in the Fidelity CBM, we hold that the '988 patent is eligible for covered business method patent review.

B. Claim Construction

We interpret the claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent. 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1281–82 (Fed. Cir. 2015). Under the broadest reasonable interpretation 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). Any special definition for a claim term must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

In our Decision instituting this trial, we determined the broadest reasonable interpretation of "subsystem identification information" is "information that identifies a subsystem." Dec. Inst. 8–10. We noted that this interpretation did not limit the information to identify any particular subsystem (e.g., it could identify the remote subsystem, the central subsystem, etc.). *Id.* at 11.

Patent Owner does not challenge this interpretation directly, although it does make some arguments that imply that it disagrees with some aspects of the construction. For example, Patent Owner takes issue with our statement, reiterated above, that our interpretation does not limit the subsystem identification information ("SSID") to any particular subsystem. *See*, *e.g.*, PO Resp. 26–27. Patent Owner, however, simply misunderstands our statement. That the SSID is not limited to any particular subsystem means that the SSID could identify a remote subsystem, a central subsystem, or any other type of subsystem—the claims do not require the SSID identify, for example, only a remote subsystem. The SSID could identify any type of subsystem. Patent Owner points to several columns in the '988 patent where it believes an SSID is described, specifically identifying DAT_TERMINAL_ID. *Id.* at 26–27 (citing Ex. 1001, 7:52–10:33, Fig. 3a). Patent Owner provides no further analysis.

Figure 3a discloses an unencrypted tag that includes "a time stamp . . . , an identification number to *identify the merchant* originating the scan and any additional useful information." Ex. 1001, 8:14–17 (emphasis added). The DAT_TERMINAL_ID, which is part of the unencrypted tag, "uniquely identifies the DAT 200 which is used by the customer." *Id.* at 10:27–33. The DAT 200, also known as the remote data access terminal (*id.* at 4:62–63) is shown in Figure 2 and is a collection of components found at the merchant (e.g., bank). *Id.* at 5:20–38. Thus, in this particular example, the SSID (which is not encrypted) identifies the remote data access terminal, for example, the subsystem that scans and sends images at a bank. Nothing about the term "subsystem identification information," as set forth in the claims or specification, indicates that only the remote data access

subsystems can have an SSID; this is merely an example. Accordingly, we construed SSID in a manner that encompassed a preferred embodiment but, because the specification provided no indication that the term should be read more narrowly, we did not limit SSID to the particular embodiment identified by Patent Owner. *See Superguide Corp. v. DirecTV Enter., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) ("Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification or prosecution history when those sources expressly disclaim the broader definition.").

Patent Owner also argues in its Response that the word "subsystem" implies some degree of common ownership among the subsystems. *See, e.g.*, PO Resp. 18 (arguing that the "two banks in [Campbell] are [not] banks that belong to the same banking/financial company . . . none of the banks . . . are subsystems of the other bank."); *id.* at 34 (arguing that the banks in Campbell are not "limited to a single banking/financial entity."); Pet. Reply 4–5 (responding to Patent Owner's common ownership argument; alleging that Patent Owner made claim construction arguments in District Court to the contrary); *see also* Ex. 1027, 3 (containing Patent Owner's infringement contention). Upon questioning, Patent Owner withdrew this argument in Oral Hearing:

> [Patent Owner's Counsel]: I'm told that it is not necessarily commonly owned. However, the portions have to work together and enable the result that is warranted by the claims.

> So a first step might be owned by one party but the remaining steps can be owned by another party or function by using another party, but they have to function together in order to achieve the result that's in this claim.

Tr. 50:14–20. We agree that nothing in the claims, as would be understood by a person of ordinary skill in the art in view of the specification, requires any form of ownership or other type of corporate relationship between the various subsystems; only that they function in the manner set forth in the claims. Indeed, the ordinary meaning of "system" involves something organized around function, not ownership.[6] A subsystem is merely a sub-component of a system.[7]

In view of the above, we retain our initial construction of "subsystem identification information" as "information that identifies a subsystem."

C. Patent Owner's Motion to Exclude

Patent Owner moves to exclude Exhibit 1026 (Michalson Affidavit), Paper 24 (Revised Exhibit List), and Paper 23 (Petitioner's Reply). PO Mot. Excl. 2.

Patent Owner objects to Exhibit 1026 because it contains sub-exhibits and because it allegedly "raises new grounds and issues that go beyond the scope of Patent Owner's Response to Petition." *Id.* at 2–4. We have

[6] "system. A collection of components organized to accomplish a specific function or set of functions." *IEEE Standard Glossary of Software Engineering Terminology* 73 (IEEE Std 610.12-1990, 1990) (Ex. 3001).

[7] "subsystem. A secondary or subordinate system with a larger system." *Id.* at 72.

reviewed these objections and determine that Patent Owner has failed to identify a persuasive reason why Exhibit 1026 should be excluded.

Regarding Petitioner's improper use of sub-exhibits within an exhibit, we note that, although parties are not permitted to file combined documents as Petitioner has done in Exhibit 1026, *see* 37 C.F.R. § 42.6(a)(3), exclusion would be too extreme a remedy in this instance, where there is insufficient prejudice to Patent Owner. A more reasonable remedy would be to have Petitioner re-file the documents, but at this late stage of the proceeding, where briefing has closed, there is no compelling reason to have Petitioner re-file the documents.

Regarding Patent Owner's arguments that Exhibit 1026 goes beyond the scope of Patent Owner's Response, we find this argument unpersuasive. As an initial matter, a motion to exclude is not a proper vehicle for use by a party to raise the issue of a reply exceeding the proper scope in violation of 37 C.F.R. § 42.23(b). *See Vibrant Media Inc. v. General Electric Co.*, Case IPR2013-00170, slip op. at 31 (PTAB June 26, 2014) (Paper 56) ("Whether a reply contains arguments or evidence that are outside the scope of a proper reply under 37 C.F.R. § 42.23(b) is left to our determination."). Moreover, the evidence cited by Dr. Michalson in his testimony is encouraged by our rules. *See* 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight."). The documents supplied in the sub-exhibits are the underlying facts that the opinion relies upon. *See*, *e.g.*, Ex. 1026, 10 (citing the sub-exhibits in support of his testimony). Further, Dr. Michalson's testimony is in response to particular arguments Patent Owner made in its Response. Specifically, Dr. Michalson's testimony is limited to the LAN/WAN (Ex.

1026, 7–11), storage (*id.* at 11–13), and encryption (*id.* at 13–15) disclosures in Campbell. Patent Owner argues that Campbell does not disclose a LAN/WAN and encryption in the Response. *See, e.g.*, PO Resp. 24 (encryption), 46–48 (LAN/WAN). As such, Dr. Michalson's testimony is, on its face, in response to Patent Owner's arguments. Patent Owner does not set forth a persuasive argument that Dr. Michalson's testimony is improper in this instance. As to Dr. Michalson's testimony on storage (Ex. 1026, 11–13), it is not clear to us whether this testimony is in response to Patent Owner's arguments in the Response. Our Decision does not rely on this testimony, however, so there is no need to exclude this portion of the testimony. In view of the above, Patent Owner's Motion to Exclude Exhibit 1026 is denied.

We also deny Patent Owner's Motion to Exclude Paper 24 (Revised Exhibit List) and Petitioner's Reply. It is not clear to us why we should exclude an exhibit list; it is not evidence. *Cf.* 37 C.F.R. § 42.64(c) ("A motion to exclude *evidence* . . .") (emphasis added). As to Petitioner's Reply, we have already determined that Exhibit 1026 will not be excluded and, thus, we need not exclude the Reply or the portions that rely on Exhibit 1026.

D. Anticipation by Campbell

Petitioner asserts that claims 1, 2, 18, 26, 29, 36, and 46 are anticipated by Campbell. Pet. 25–38. Campbell discloses a system that transmits check images and routes those images between banks. Ex. 1018, Abstract. A first entity in the system lies within sending bank 14. *Id.* at Fig. 1. Within this first bank, hardware, and software are configured to create a

check image and other data (e.g., source and destination identifiers). *Id.* at 2:64–3:32, 5:23–28; *see also id.* at 4:10–25 (describing the same hardware and software performing the same operations for a dishonored check). The first bank sends the gathered information to a second entity of the system, node 12, over a network. *Id.* at 3:20–36; *see also id.* at 4:26–29 and 4:59–5:1 (describing the transmission in the dishonored check example). Node 12 performs various tasks with the sent information, one task being the forwarding of the check image to the appropriate receiving bank. *Id.* at 1:60–67, 2:30–32. Receiving bank 16, therefore, is a third entity in the system. *See id.* at Figs. 1, 2. The system is equipped to send and receive encrypted information between the banks and within its own central node 12. *Id.* at 5:55–60, 6:37–38.

We have reviewed Patent Owner's arguments against Petitioner's ground (PO Resp. 16–40); the principal arguments are addressed below.

1. Claim 1

With respect to independent claim 1, Patent Owner principally argues that Campbell fails to disclose a) "subsystems" and b) "encryption" of the SSID in the manner required by the claim. *See, e.g.*, PO Resp. 18 and 25 (arguing "subsystem"); *id.* at 24 and 30 (arguing "encryption").

a. "subsystem"

Campbell discloses a system for transporting the images of checks. Ex. 1018, 2:18–20 ("FIG. 1 shows an example of a system for transporting images of checks"). As such, we are persuaded by Petitioner's position that the various separately identifiable objects operating within this system—namely, the first bank, the node, and the second bank—are subsystems

within this system.[8] Except for the "encryption" aspect of the claim, discussed below, Patent Owner raises no cogent argument that the first bank, the node, or the second bank in Campbell fail to disclose any element of claim 1. Instead, Patent Owner's argument is that one or more entities in Campbell are not commonly owned. PO Resp. 18, 25. We determined in our claim construction section, however, that there is no ownership requirement to be a "subsystem" of the claimed system. Accordingly, Patent Owner's argument is unpersuasive. Reviewing the record before us, we are persuaded that Petitioner has established that the "remote data access subsystem" reads on the first bank in Campbell and the "central data processing system" reads on the node.

b. "encryption"

Patent Owner's arguments regarding "encryption," fall in two lines: i) arguments that Campbell does not disclose an encrypted SSID because Campbell does not disclose an SSID (*see, e.g.*, PO Resp. 24–27); and ii) arguments that the disclosure of Campbell that Petitioner relies on discloses encryption only of check images (*see, e.g.*, *id.* at 24).

i. SSID

We have determined already that the hardware and software system at the first bank is a subsystem of the check image processing system of Campbell. When the system of the first bank transmits the check to the node, it includes information identifying itself. Pet. 27 (citing Ex. 1018, 5:23–28); *id.* at 29 (citing Ex. 1018, 5:14–60); Ex. 1018, 5:23–28 ("The [node] may read some data accompanying check images, for example . . . .

[8] *See supra* notes 6, 7.

[I]nformation may instruct the node 12 about the identity of the sending institution and the intended receiving institution."). Accordingly, we are persuaded by Petitioner's assertion that the first bank transmits an SSID because it transmits information that identifies a subsystem (the first bank subsystem). Patent Owner's argument that Campbell does not describe an encrypted SSID because it does not disclose an SSID, therefore, is unpersuasive.

ii. Encryption of Check Images Only

Petitioner cites to Campbell, column 5, lines 14–60, which discusses encryption of information as follows:

> The controller 42 may read some data accompanying check images, for example, it may identify that TCP/IP protocol information accompanying those images. That information may instruct the node 12 about the identity of the sending institution and the intended receiving institution. That information may also identify the disposition of the check . . . .
>
> The controller 42 may also be configured to handle information encrypted by sending institutions to provide security for the images transported by the network 38. The controller 42 may have its own encryption and decryption equipment to provide a secure environment in the node 12.

Pet. 29. In our Decision to Institute this trial, we determined that Campbell's system "is equipped to send and receive encrypted information between the banks," relying on the above-cited passage in Campbell. Dec. Inst. 10 (citing Ex. 1018, 5:55–60).

With a full record, we find that the preponderance of the evidence supports Petitioner's position. Campbell does not state that only the *image*

is encrypted. Instead, Campbell states that "*information* [is] encrypted . . . to provide security *for the images* transported." Ex. 1018, 5:55–58 (emphasis added). Thus, Campbell uses the terms *information* and *image* for different things. Earlier in that column, Campbell also explains what it means by "information," and it is clear that this information is not just images but rather includes "information that *accompan[ies]* those images." *Id.* at 5:25–26 (emphasis added). For example, the information identifies the "sending institution," "receiving institution," and "the disposition of the check." *Id.* at 5:26–31. As we discussed above in our claim construction section, we are persuaded that information that identifies the sending institution is an SSID. Thus, when this information is encrypted, it is an encrypted SSID, as required by claim 1. *See also* Ex. 1026, 14 (Petitioner's expert, Dr. Michalson, testifying that the encrypted information in Campbell identifies the receiving institution). Reviewing the record before us, we are persuaded that Campbell discloses transmitting an encrypted SSID.

c. Conclusion Regarding Claim 1

In view of the above, we determine that Petitioner has shown, by a preponderance of the evidence, that Campbell anticipates the subject matter of claim 1.

2. Claim 2

Claim 2 depends from claim 1 and further requires that the data access subsystem comprises a scanner. Petitioner asserts that Campbell's imaging equipment scans the check. Pet. 29. Patent Owner reiterates its prior argument that the banks are not a subsystem as claimed. PO Resp. 31–32. We already have determined that this argument is unpersuasive. We

determine that Petitioner has shown, by a preponderance of the evidence, that Campbell anticipates the subject matter of claim 2.

3. Claim 18

Claim 18 depends from claim 1 and requires "a further management subsystem for managing the collecting and sending of the transaction data." Petitioner asserts that the bank of first deposit in Campbell discloses this limitation, where it discloses check processing equipment for generating images of checks. Pet. 30 (citing Ex. 1018, 4:18–21). Patent Owner argues that this citation "fails to describe any realistic components of any of the banks in Campbell" and does not "support[] the claim 18 limitation." PO Resp. 32–33. Patent Owner does not discuss with specificity the deficiencies it believes are found in Petitioner's citation, however.

The cited portion of Campbell states: "[a]n image of the front and back faces of the dishonored check is generated by the payor bank 34 and sent to a public switched telephone network in the form of a frame relay network 38." Ex. 1018, 4:18–21. The cited portion, while brief, provides several implications. The first implication is that the payor bank collected transaction data (e.g., the check image), in order to be capable of sending it. The second implication is that the payor bank sent the transaction data in digital form over a network, in order to be capable of using the frame relay network. Thus, this passage in Campbell discloses a capability of the sending bank's subsystem to manage these actions, because they are described as occurring. As such, Petitioner has shown how Campbell describes the claimed functionality, and Patent Owner's argument fails to persuade us to the contrary. We determine that Petitioner has shown, by a

preponderance of the evidence, that Campbell anticipates the subject matter of claim 18.

4. Claim 26

Independent claim 26 is similar in scope to independent claim 1. Petitioner's assertions for unpatentability and Patent Owner's arguments are substantially similar to those we discussed in our analysis of claim 1. *See* Pet. 30–33; PO Resp. 33–36. We determine that Petitioner has shown, by a preponderance of the evidence, that Campbell anticipates the subject matter of claim 26.

5. Claim 29

Claim 29 depends from claim 26 and requires a plurality of remote locations and a plurality of central locations. Patent Owner argues that Petitioner fails to address these limitations sufficiently. PO Resp. 36–37. Petitioner responds that Campbell discloses a plurality of sending and receiving banks explicitly and as a matter of common sense. Pet. Reply 9 (citing Pet. 33–34; Ex. 1018, 3:46–52, 4:30–49).

We agree with Petitioner that Campbell discloses a plurality of sending and receiving banks. Ex. 1018, 6:9–14 (describing subscribing and non-subscribing banks using the system). Petitioner, however, relied on the *node* in Campbell to show the central location limitation of independent claim 26, not the remote bank. Pet. 31. Petitioner does not explain how Campbell describes a plurality of nodes (or, conversely, how the receiving bank describes each feature of the central location). Accordingly, Patent Owner's observation that Petitioner has failed to address the claim limitations is persuasive. We determine that Petitioner has failed to show by

a preponderance of the evidence that Campbell anticipates the subject matter of claim 29.

6. Claim 36

Claim 36 depends from claim 29. Petitioner's failure of proof for claim 29 extends to claim 36.

7. Claim 46

Independent claim 46 requires "one or more remote subsystems," "at least one intermediate subsystem," and "at least one central subsystem" arranged in a "tiered manner." Because the scope of the phrases "one or more" and "at least one" both include "one," Petitioner reads "one or more remote subsystems" on the sending bank of Campbell (Pet. 36), "at least one intermediate subsystem" on the node (*id.* at 37), and "at least one central subsystem" on the receiving bank (*id.*).

Patent Owner argues that this is not a "tiered architecture." PO Resp. 39–40. Patent Owner fails to persuade us that Petitioner's assertions are improper and does not offer any cogent construction of "tiered architecture" in support of its argument. Claim 46 explicitly permits the "tiered manner" to be one of each subsystem, where the remote subsystem communicates with the intermediate subsystem, and the intermediate subsystem communicates with the central subsystem. Even though the claimed "tiered architecture" is recited broadly enough to read on a triangle-shaped arrangement shown, for example, in Figure 1 of the '988 patent, it is also recited broadly enough to read on one subsystem at each tier. In Campbell, the first bank communicates with the node, and the node communicates with

the second bank. Ex. 1018, Fig. 1. Thus, the subsystems in Campbell are arranged in the tiered manner required by the claim.

The remainder of the claim involves capturing of an image and transmission of data between the subsystems, which Petitioner has shown is found in Campbell in the manner required by the claim (Pet. 35–37), and against which Patent Owner raises no persuasive argument (*see* PO Resp. 39–40). Reviewing the record before us, we are persuaded Petitioner has shown, by a preponderance of the evidence, that Campbell anticipates the subject matter of claim 46.

8. Conclusion for the Campbell Anticipation Ground

Reviewing the Petition, Patent Owner Response, Petitioner's Reply, and the evidence and arguments cited and discussed therein, we determine that Petitioner has shown, by a preponderance of the evidence, that Campbell anticipates the subject matter of claims 1, 2, 18, 26, and 46, but has not made a sufficient showing for claims 29 and 36.

E. Obviousness in View of Campbell and Blackwell

Petitioner asserts that claims 16, 27, 38, and 42 are obvious in view of Campbell and Blackwell. Pet. 41–50. Claim 16 depends from independent claim 1 and claims 27 and 38 depend from independent claim 26, both of which were included the Campbell anticipation ground. For those reasons, we included claims 1 and 26 in this ground when instituting this trial. Dec. Inst. 13–14. Claim 42 is independent.

We have already discussed Campbell above. Blackwell is directed to a method for verification of remotely accessed data. Ex. 1019, Abstract. For example, remote terminals are provided at a bank branch, and the

method serves to verify the identity and credentials of the individual at the remote location using communication with a central location. *Id.* at 5:34–42. The remote and central terminals are each part of a LAN, and are connected to each other via a communications network. *Id.* at 5:37–59.

We have reviewed Patent Owner's arguments against this ground (PO Resp. 40–58) and address its principal arguments below.

1. Claims 1 and 26

Patent Owner's arguments with respect to these claims are substantially similar to those presented in the Campbell anticipation ground above. *See* PO Resp. 40–46. These arguments are unpersuasive for the reasons expressed above. We determine that Petitioner has shown, by a preponderance of the evidence, that the teachings of Campbell and Blackwell render obvious the subject matter of claims 1 and 26.

2. Claim 16

Claim 16 depends from claim 1 and further requires a local area network (LAN) at the remote and central subsystems and a wide area network (WAN) for transmitting data between the two. Petitioner points to the disclosure in Blackwell where the remote and central terminals are connected via a LAN and connected together via a communications network. Pet. 41–42. Petitioner implies that the communications network is a WAN. *See id.* Petitioner also points to the public switched telephone network in Campbell, connecting the banks to the node, as another example of a WAN. *Id.* at 42. Petitioner reasons that it would have been obvious, in view of Campbell and Blackwell, to use LANs at each of the subsystems and a WAN to connect the subsystems "to achieve the predictable result of

transmitting image data over a scalable, secure, efficient, and reliable distributed computing system." *Id.* at 49.

Patent Owner argues that neither reference discusses a WAN. PO Resp. 46–48. Patent Owner's argument is unpersuasive in view of the disclosures of Campbell and Blackwell that indicate that the communications networks connecting the banks are WANs. Patent Owner appears to argue that the term "WAN" does not appear, verbatim, in the prior art. *See id.* It is well established that a reference need not teach a limitation *in haec verba*. *In re Bode*, 550 F.2d 656, 660 (CCPA 1977). A WAN is simply a network that spans geographically separated areas.[9] Thus, the communication network in Blackwell, which connects a remote and a central location, is a WAN. Ex. 1019, 5:34–51, Fig. 1. In addition, the frame relay network in Campbell, connecting separate banks to the node, is also a WAN. Ex. 1018, 2:50–63; Ex. 1026, 7–11 (Petitioner's declarant, Dr. Michalson, testifying that Campbell teaches a WAN); *see also* Ex. 1001, 12:36–50 (describing the preferred embodiment of the '988 patent, which uses a frame relay network, as a WAN). Accordingly, we are persuaded that both Campbell and Blackwell disclose WANs to communicate between networks.

[9] "Wide Area Network (WAN)[:] A data communications network that covers geographically separated areas, typically containing cities. Thus a WAN is usually composed of Local Area Networks (LAN) interconnected by other communications links hired from a PTT or other common carrier." *Focal Dictionary of Telecommunications* (1999) (retrieved from http://search.credoreference.com/content/entry/bhfidt/wide_area_network_wan/0) (Ex. 3002).

Patent Owner also appears to argue that Blackwell is not combinable with Campbell. PO Resp. 46–47. For example, Patent Owner describes Blackwell as "very remote from the banking/financial disclosure of Campbell" and that "Blackwell does not discuss any of the financial/banking transactions that are disclosed and claimed in Campbell." *Id.* at 47. These arguments are unpersuasive. Campbell and Blackwell are both in the field of computerized banking systems, particularly those having geographical distances between the various users/operators. Ex. 1018, 2:18–24 (Campbell disclosing sending of check images between banks over a network); Ex. 1019, 1:7–18 (Blackwell disclosing sending identification information from a remote user), 5:25–33 (disclosing that the information sent involves a banking environment). In addition, both references involve solutions to the problems of document imaging and scanning. Ex. 1018, 2:18–24; Ex. 1019, 6:40–47 (disclosing capturing of a document image using a camera). We find Campbell and Blackwell are, therefore, analogous art to the claimed invention, and we are persuaded that the teachings of Campbell and Blackwell are combinable in the manner proposed by Petitioner.

Reviewing the record before us, we determine that Petitioner has shown, by a preponderance of the evidence, that the teachings of Campbell and Blackwell render obvious the subject matter of claim 16.

3. Claim 27

Claim 27 depends from claim 26 and requires that the captured transaction data is transformed into a bitmap image and then compressed, encrypted, and tagged. Petitioner first points to Campbell disclosing imaging equipment capturing an image of transaction data and transmitting a

compressed and encrypted form of that image along with an SSID indicating the origin location. Pet. 42, 43. Petitioner then points to Blackwell for disclosing the image specifically being a bitmap image, as well as for tagging the image with a time stamp. *Id.* at 43.

Patent Owner's arguments either repeat the arguments we have already determined to be unpersuasive or argue the references in isolation. *See* PO Resp. 48–51. Reviewing Petitioner's assertions and the evidence before us, we determine that it would have been a straightforward, predictable application of known technology to use a tagged bitmap image, as taught in Blackwell, in the system of Campbell.

Reviewing the record before us, we determine that Petitioner has shown, by a preponderance of the evidence, that the teachings of Campbell and Blackwell render obvious the subject matter of claim 27.

4. Claim 38

Claim 38 depends from claim 36, which depends from claim 29; we determined above that Petitioner had failed to identify how Campbell discloses a plurality of central locations in the manner required by claim 29. Petitioner's obviousness ground does not cure this deficiency. *See* Pet. 44–45. Specifically, Petitioner relies on the single node 12 of Campbell to disclose a plurality of locations. *Id.* Petitioner offers no explanation or evidence suggesting that such a modification would have been obvious. Accordingly, Petitioner has not shown sufficiently that Campbell and Blackwell render obvious the subject matter of claim 38.

5. Claim 42

Independent claim 42 sets forth a communication network having "one or more remote subsystems," "at least one intermediate subsystem," and "at least one central subsystem" arranged in a "tiered architecture." Because the scope of the phrases "one or more" and "at least one" both include "one," Petitioner reads "one or more remote subsystems" on the sending bank of Campbell (Pet. 46–47), "at least one intermediate subsystem" on the node (*id.* at 47–48), and "at least one central subsystem" on the receiving bank (*id.* at 48). Petitioner asserts that, in view of Campbell and Blackwell, it would have been obvious that each subsystem in the proposed combination would have a LAN and that the LANs would be connected by a WAN. *Id.* at 46–49.

Patent Owner argues that Campbell does not teach a tiered architecture. PO Resp. 55. We have already determined this argument to be unpersuasive. The claims merely require one of each of the subsystems connected in a particular manner, and Campbell teaches at least one of each connected in that manner.

Patent Owner also argues that Campbell and Blackwell do not teach a WAN. *Id.* at 56. We have already determined this argument to be unpersuasive. Both Blackwell and Campbell disclose a WAN.

Patent Owner argues that Campbell and Blackwell are not combinable. PO Resp. 57. We have already determined this argument to be unpersuasive. Campbell and Blackwell are analogous art. Further, Petitioner's proposed combination is the predictable and straightforward application of existing technology. Campbell already discloses "multiworkstation systems" at the banks provide the check scanning (Ex.

1018, 3:10–12), and to the extent this is not an explicit disclosure of a LAN, it is at least a suggestion of a LAN. *See* Ex. 1026, 11 (Petitioner's declarant, Dr. Michalson, testifying that a LAN would be used to connect the check imaging equipment to the other components of the bank).

Reviewing the record before us, we determine that Petitioner has shown, by a preponderance of the evidence, that the subject matter of claim 42 would have been obvious to a person of ordinary skill in the art at the time of the invention.

6. Conclusion for the Campbell and Blackwell Obviousness Ground

Reviewing the Petition, Patent Owner Response, Petitioner's Reply, and the evidence and arguments discussed therein, we determine that Petitioner has shown, by a preponderance of the evidence, that Campbell and Blackwell render obvious the subject matter of claims 1, 16, 26, 27, and 42, but has not made a sufficient showing for claim 38.

III. RESULTS OF THE PROCEEDING

Petitioner has shown, by a preponderance of the evidence, that Campbell anticipates claims 1, 2, 18, 26, and 46. Petitioner has not shown, by a preponderance of the evidence, that Campbell anticipates claims 29 and 36.

Petitioner has shown, by a preponderance of the evidence, that Campbell and Blackwell render obvious the subject matter of claims 1, 16, 26, 27, and 42. Petitioner has not shown, by a preponderance of the evidence, that Campbell and Blackwell render obvious claim 38.

IV. ORDER

In view of the foregoing, it is hereby:

ORDERED that claims 1, 2, 16, 18, 26, 27, 42, and 46 are unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, the 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.

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