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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GLOBAL TEL*LINK CORPORATION,
Petitioner,

v.

SECURUS TECHNOLOGIES, INC.,
Patent Owner.

Case IPR2014-01283
Patent 7,805,457 B1

Before KEVIN F. TURNER, BARBARA A. BENOIT, and GEORGIANNA W. BRADEN, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

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

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6(c), and this Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–17 of U.S. Patent No. 7,805,457 B1 (Ex. 1001, "the '457 Patent") are unpatentable.

A. Procedural History

Global Tel*Link Corporation ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 1–17 of the '457 Patent. Securus Technologies, Inc. ("Patent Owner") filed a Preliminary Response (Paper 7, "Prelim. Resp."). Pursuant to 35 U.S.C. § 314(a), we instituted an *inter partes* review of claims 1–17 as on the following grounds:

References	Basis	Claims Challenged
Crites[1], Krebs[2], and Hodge[3]	§ 103	1–5 and 14–17
Crites, Krebs, Hodge, and Eisen[4]	§ 103	6–13

See Paper 10 ("Dec."), 18.

[1] US Patent Publication No. 2003/0126470 A1, Jul. 3, 2003 (filed Dec. 23, 2002) (Ex. 1008).
[2] Valdis E. Krebs, Mapping Networks of Terrorist Cells, 24(3) Connections 43-52 (2002) (Ex. 1009).
[3] US Patent Publication No. 2004/0029564 A1, Feb. 12, 2004 (filed Aug. 8, 2002) (Ex. 1006).
[4] US Patent Publication No. 2005/0039036 A, Feb. 17, 2005 (filed Aug. 13, 2003) (Ex. 1007).

After institution of trial, Patent Owner filed a Patent Owner Response (Paper 13, "PO Resp."), to which Petitioner filed a Reply (Paper 20, "Reply").

An oral argument was held on September 30, 2015. A transcript of the oral argument is included in the record.[5] Paper 28, "Tr.".

B. Related Proceedings

Petitioner informs us that the '457 Patent is the subject of U.S. district court case: *Securus Technologies, Inc. v. Global Tel*Link Corporation*, 3:13-cv-03009 (N.D. Tex.). Pet. 2.

C. The '457 Patent

The '457 Patent is directed to systems and methods for monitoring activity of detainees, based on gang affiliation, through search and correlation of one or more databases Ex. 1001, Abs. The databases that can be searched include information such as called numbers, call billing records, visitation records of detainees, as well as information about detainee visitors, and funding for detainee accounts, such as commissary accounts, calling card accounts, and communication funding accounts, which may be linked to detainees or funding sources having a known gang affiliation. *Id*. at 2:3–20. The system allows "investigators to identify other gang members to assist in crime investigations for inside and outside the facility walls." *Id*. at

[5] The parties filed Objections to Demonstrative Exhibits. Papers 26, 27. In this Final Written Decision, we rely directly on the arguments presented properly in the parties' briefs and the evidence of record. The demonstrative exhibits were only considered to the extent they are consistent with those arguments and evidence; therefore, the objections are overruled.

1:19–20. The ’457 Patent also describes alerting an investigator upon identifying notable events related to monitored detainees, where such alerts can occur when a detainee utters certain words or phrases during a monitored phone call, and allowing for real time monitoring of ongoing calls. *Id*. at 2:52–67, 20:13–18.

D. Illustrative Claims

As noted above, an *inter partes* review was instituted as to claims 1–17 of the ’457 Patent, of which claims 1, 6, 13, and 14 are independent claims. Claims 1 and 6 are illustrative and are reproduced below:

> 1. A method for monitoring activity of detainees, comprising:
> identifying a detainee who is affiliated with a gang or correctional investigation;
> searching one or more databases for information associated with the detainee, wherein the one or more databases include call record databases, and wherein the information associated with the detainee includes individuals called by the detainee, individuals who visit the detainee, telephone numbers called by the detainee, and sources of funding for the detainee's accounts;
> correlating the information to identify individuals who may be affiliated with the gang or correctional investigation; and
> creating an alert that is triggered when a specified word, phrase or investigative event is detected during a telephone call by the detainee.

> 6. A method for monitoring activity of detainees, comprising:
> searching a first plurality of databases for a first level of information associated with a detainee known to be affiliated with a security threat group;
> searching a second plurality of databases using the first level of information to identify a second level of information;
> wherein the first and second plurality of databases include call record databases, and wherein the first and second levels of information associated with the detainee include individuals called by the detainee, individuals who visit the detainee, telephone numbers called by the detainee, and sources of funding for the detainee's accounts;
> correlating the second level of information to the detainee to identify other individuals affiliated with the security threat group; and
> creating an alert that is triggered when a specified word or phrase is detected during a telephone call by the detainee.

II. DISCUSSION

A. Claim Construction

We give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In the Decision to Institute, we construed "database," to encompass an electronic source of data or information and does not encompass non-electronic sources of data or information. *See* Dec. 5–6. During the course of the trial, neither party challenged our construction of this claim term or proffered constructions of other claim terms. PO Resp. 5; Tr. 54–55. We see no reason to alter the construction as set forth in the Decision to Institute, and we incorporate our previous analysis for purposes of this decision. Therefore, for the reasons set forth in the Decision to Institute, we find the broadest reasonable construction of "database" to encompass an electronic

source of data or information and does not encompass non-electronic sources of data or information.

All other claim terms are given their ordinary and customary meaning.

B. Principles of Law

To prevail in its challenges to the patentability of the claims, a petitioner must establish facts supporting its challenges by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented 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) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We analyze the instituted grounds of unpatentability in accordance with the above-stated principles.

C. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17. "The importance of resolving the level of ordinary skill in the art lies in the necessity of

maintaining objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991).

Petitioner's declarant, Dr. Kaza, opines that a person of ordinary skill in the art relevant to the '457 Patent "would have a B.S. degree in Electrical Engineering, Computer Science, or an equivalent field as well as at least 3–5 years of academic or industry experience in information systems, or comparable industry experience." Ex. 1003 ¶ 20. Patent Owner does not offer any contrary explanation regarding who would qualify as a person of ordinary skill in the art relevant to the '457 Patent (*see generally* PO Resp.) and Patent Owner's declarant, Dr. Akl, uses the level of skill in the art that is very similar to that articulated by Dr. Kaza (Ex. 2003 ¶ 33).

Based on our review of the '457 Patent, the types of problems and solutions described in the '457 Patent and cited prior art, and the testimony of Petitioner's declarant, we adopt and apply Petitioner's definition of a person of ordinary skill in the art at the time of the claimed invention. We note that the applied prior art reflects the appropriate level of skill at the time of the claimed invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

D. Asserted Obviousness of Claims 1–5 and 14–17 in View of Crites, Krebs, and Hodge

Petitioner contends claims 1–5 and 14–17 of the '457 Patent are unpatentable under 35 U.S.C. § 103 in view of Crites, Krebs, and Hodge. Pet. 12–32. Patent Owner disputes Petitioner's position, arguing that Petitioner has failed to demonstrate a reason to combine the cited references, and that the cited references fail to disclose all the elements required by the

challenged claims. PO Resp. 9–17. We have reviewed the Petition, the Patent Owner's Response, and Petitioner's Reply, as well as the relevant evidence discussed in those papers. For reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that the challenged claims of the '457 Patent would have been obvious in view of Crites, Krebs, and Hodge.

1. Overview of Crites

Crites discloses a method and apparatus for providing inmate security threat group information, where the term security threat group refers to a group, alliance, gang, or inmate organization that has been determined to be acting in concert so as to pose a threat to the public, Department of Corrections staff, other inmates, or to the orderly administration of a correctional institution. Ex. 1008, Abstract, 1:37–42. Crites discusses that such affiliations may be identified through associations with known members by monitoring the inmate's telephone calls. *Id*. at 1:45–49.

Crites' system uses security threat group database server 210 to obtain and store records of inmate calls and determines correlations, where the latter may occur automatically. *Id*. at 4:35–41. In one example, an investigator may determine whom an inmate has been calling, determine other inmate activity in connection with the phone number(s) called, and determine how many other inmates have been calling the numbers that the specific inmate is calling. *Id*. at 5:62–6:7. The system also allows for a determination to be made as to whether the monitored communications meet the qualifications for being flagged as a security threat, and a designated party may be notified and/or a filtered or unfiltered report may be generated. *Id*. at 10:28–38.

Petitioner acknowledges that Crites does not disclose specifically how the above-discussed correlations are performed, and/or how the different data are weighed in the calculations, as required by the claims but argues that a person of ordinary skill in the art would have looked to the prior art for how to perform such correlations and how to weigh the different data acquired. Pet. 12. Petitioner also acknowledges that Crites does not disclose explicitly how to monitor communications of inmates at multiple facilities, although multiple facilities may be served, as required by the claims. Pet. 14.

2. Overview of Krebs

Krebs discloses processes for mapping covert networks. Ex. 1009, Abstract. Krebs discloses that networks may be mapped through investigation of records of phone calls, electronic mail, travel records, and observation of meetings and attendance at common events. *Id*. at 51. Krebs also details that bank account and money transfer records, as well as court records, may be examined to map covert networks. *Id*. Krebs also discusses the use of using possible suspects' "ego networks" to discover additional suspects and determine areas of overlap. *Id*.

Petitioner argues that ordinarily skilled artisans would have looked to Krebs to determine how to weigh and analyze various types of information in order to determine the strengths of relationships, and that the information and functions of Krebs could have been combined with the system of Crites by known methods. Pet. 12–13.

3. Overview of Hodge

Hodge discloses a secure telephone call management system for authenticating users in an institutional facility, where access may be limited

based on funds in a user's account or other limitations. Ex. 1006, Abstract. Hodge details that an inmate's debit account may be controlled by others, including family members, thus limiting the call volume allowed to the inmate. *Id*. ¶ 7. Hodge also discloses that penal institutions should monitor activities and communications of inmates to restrict connections to illegal activities outside of the institutions. *Id*. ¶ 11. Such monitoring can include "shadow monitoring," where that monitoring occurs without detection, where a called party's phone number may be flagged, and where calls may be automatically be recorded and/or analyzed based on spoken key words or phrases, via voice recognition software, with alerts being sent to the proper authorities. *Id*. ¶¶ 135–136.

Petitioner argues that ordinarily skilled artisans would have looked to Hodge to determine how to funnel all of the inmate-related data through a central site server that also provides analysis and monitoring capabilities. *Id*. ¶ 60; Pet. 14–15.

4. Analysis

a. Claims 1 and 14: Petitioner's Combination of Crites, Krebs, and Hodge

Petitioner provides citations to the references and analysis explaining how the combination of Crites, Krebs, and Hodge would have conveyed to one of ordinary skill in the art each limitation recited in independent claims 1 and 14 of the '457 Patent. Pet. 16–20, 23–26. We determine that, for the reasons described below, Petitioner has established by a preponderance of the evidence that the combination of Crites, Krebs, and Hodge would have conveyed to one of ordinary skill in the art the method of monitoring activity of detainees recited in claim 1 and the method of configuring an alert recited in claim 14.

Identifying a detainee

For the recited "identifying a detainee" limitation in claim 1, Petitioner relies on Crites description of identifying unknown members of a security threat group by first identifying a known member of the group, such as through monitoring inmate telephone calls. *Id.* at 16 (citing Ex. 1008, 1:45–49).

Searching . . . for information associated with the detainee

For the recited "searching one or more databases for information associated with the detainee" limitation, Petitioner relies on the combination of Crites, Krebs, and Hodge. *Id.* at 16–19 (citing Ex. 1008, 3:66–4:10, 4:35–44). Crites describes a databases of known gang information and affiliations, a database of information about inmates of a correctional facility, and "a security threat group database server," which includes telephone call records of inmates. Ex. 1008, 3:66–4:10, 4:35–39. Crites also describes using the security threat group database to identify calls of an inmate associated with a security threat group (*id.* at 4:41–44), which Petitioner contends would have conveyed to one of ordinary skill in the art "searching one or more databases for information associated with the detainee" identified as being affiliated with a gang or correctional investigation, as required by claim 1.

Information associated with the detainee

For the various types of information associated with the detainee recited in claim 1, Petitioner relies on Crites's call record information, that includes the name of the inmate and numbers called, as conveying to one of ordinary skill in the art "information associated with the detainee includes . . . telephone numbers called by the detainee." Pet. 17 (citing

Ex. 1008, 1:53–56). According to Petitioner, Crites's description that, as part of its security threat group database search functionality, a "billing name and address . . . could be displayed with the called number" would have conveyed to one of ordinary skill in the art that the information associated with the detainee includes "individuals called by the detainee." *Id.* at 17–18 (citing Ex. 1008, 8:50–51).

Petitioner contends Krebs and Hodge would have conveyed to one of ordinary skill in the art that information associated with the detainee includes information about "sources of funding for the detainee's accounts," as recited in claim 1. *Id.* at 18–19. Petitioner relies on Hodge's secure telephone call management system, for a prison or other type of institutional facility, which includes accounting software capable of limiting call access based on funds in an inmate's account. *Id.* at 18 (citing Ex. 1006, Abstract). Petitioner also relies on Hodge's description that inmate telephone accounts may be funded by family members. *Id.* at 19 (citing Ex. 1006, ¶¶ 6–7). Petitioner further relies on Kreb's suggestion to monitor bank records to help identify co-conspirators. *Id.* at 18 (citing 1009, Table 4).

Lastly for the various types of information associated with the detainee recited in claim 1, Petitioner contends that the combination of Crites and Krebs would have conveyed to one of ordinary skill in the art "information associated with the detainee includes . . . individuals who visit the detainee." Reply 12–16; Pet. 18. Petitioner relies on Krebs's disclosure that mapping covert networks can benefit from data sources about covert collaborators including "observation of meetings and attendance at common events." Pet. 18 (citing 1009, Table 4). Petitioner contends, with support from Dr. Kaza's testimony, that "[w]hen combining Krebs with Crites, it

would have been obvious to one of ordinary skill in the art to apply Krebs's directive to factor in-person meetings to the personal visitations that are privileged to correctional facility inmates." *Id.* at 18 (citing Ex. 1003 ¶ 67). Thus, Petitioner's position is that Krebs' disclosure of the benefits of considering in-person meetings in detecting co-conspirators would have conveyed to one of ordinary skill in the art the inclusion of individuals who visit the detainee in information associated with the detainee.

Correlating the information

For the limitation "correlating the information to identify individuals who may be affiliated with the gang or correctional investigation," Petitioner relies on Crites. Pet. 19–20 (citing Ex. 1008, 4:35–40, 5:62–6:3, 6:22–25). Crites describes determining correlations using the security threat group database server to identify inmates who call a telephone number associated with a particular threat group and determining other correlations by performing "an investigative query of the database." Ex. 1008, 4:35–50.

Creating an alert that is triggered

Petitioner contends Hodges discloses "creating an alert that is triggered when a specified word, phrase or investigative event is detected during a telephone call by the detainee," recited in claim 1. Pet. 20 (citing Ex. 1006 ¶ 136). Hodges' describes that the central site server, in the secure telephone call management system, monitors calls and alerts proper authorities when certain key words or phrases are spoken. Ex. 1006 ¶ 136.

With respect to independent claim 14, that claim is directed to a method of configuring an alert, having many of the same elements recited in claim 1, and Petitioner relies on much of that same information discussed above. Pet. 23–26. Petitioner identifies that a determination is made

whether the monitored telephone calls meet the qualifications for being flagged as a security threat, and a designated party is notified of that threat in Crites. Pet. 23–24; Ex. 1008, 10:34–38, 45–47, 54–57. This disclosure also is relied upon by Petitioner as disclosing the "notifying a user" step of claim 14. Pet. 25–26. The claim steps of "identifying one or more parameters associated with a detainee" and "monitoring records comprising the one or more parameters," have direct analogs to the steps of claim 1 discussed above, and Petitioner relies on the same disclosure. *Id*. at 24. Similarly, for the limitation specifying what the records include, Petitioner relies on the same subject matter as discussed above information associated with the detainee. *Id*. at 24–25. With respect to the creating an alert that is triggered when a specified word or phrase is detected, Petitioner relies on Hodge and its disclosure of passive monitoring, and voice recognition software that may alert the proper authorities that a violation has occurred. *Id*. at 26; Ex. 1006 ¶¶ 14, 136.

b. Claims 2–5 and 15–17

Petitioner contends, citing to the prior art and relying on Dr. Kaza's testimony, the combined disclosures of Crites, Krebs, and Hodge, as summarized above, teaches or suggests each limitation of dependent claims 2–5 and 15–17 of the '457 Patent. Pet. 20–23, 26–28. After consideration of the language recited in claims 2–5 and 15–17 of the '457 Patent, the Petition, the Patent Owner Response, and Petitioner's Reply, as well as the relevant evidence discussed in those papers, we find that one of ordinary skill in the art would have considered these dependent claims obvious over Crites, Krebs, and Hodge for the reasons stated in the Petition.

c. Rationales to Combine Crites, Krebs, and Hodge

As discussed in detail previously, Petitioner contends the combined disclosure of Crites, Krebs, and Hodge teaches or suggests each limitation of claims 1–5 and 14–17 of the '457 Patent. Pet. 9–28. Petitioner asserts that both Crites and Krebs describes acquiring information related to calling records of suspect groups such that "[a] person of ordinary skill in the art would have looked to the prior art for how to perform such correlations and how to weigh the different data acquired." Pet. 12; *see* Ex. 1003 ¶ 56. Petitioner also asserts that the combination of Crites and Krebs would have occurred according to known methods and would have been predictable. Pet. 13. Petitioner supports its position with the declaration of Dr. Kaza, who testifies that a desire by persons of ordinary skill in the art to perform correlations of obtained data would have led such skilled artisans to Krebs and incorporations of Krebs's methods. Ex. 1003 ¶¶ 56–57.

With respect to Hodge, Petitioner asserts that Hodge is in the same field of security threat prevention as Crites and Krebs, and that one of ordinary skill in the art would have looked to Hodge for how to configure a system to perform communications monitoring for multiple facilities, where multiple facilities are specified in Crites but specific methods for monitoring of those multiple facilities are not disclosed. Pet. 14–15; *see* Ex. 1003 ¶ 60. Petitioner also asserts that the combination of Hodge with Crites and Krebs would have occurred according to known methods and would have been predictable. Pet. 15. Petitioner supports its position with the declaration of Dr. Kaza, who testifies that Hodge discloses how to funnel all inmate-related data through a central site server to provide analysis and monitoring capabilities. Ex. 1003 ¶¶ 59–60.

d. Analysis of Patent Owner's Contentions Regarding Claims 1–5 and 14–17

For claims 1 and 14, as discussed previously, Petitioner contends that a person of ordinary skill in the art could have combined the functions of Krebs and Hodge with the system of Crites and/or Krebs by known methods and that the combination would have been predictable to a person of ordinary skill in the art. Pet. 13, 15. Patent Owner argues that the Petition and Dr. Kaza's testimony are conclusory, are not a substitute for fact-based analysis, and should be given no probative weight. PO Resp. 9–11. Patent Owner continues that the arguments and evidence presented do not "explain the how, what, and why of the proposed combinations." *Id*. at 11. Petitioner disputes these contentions pointing out that Dr. Kaza's testimony includes analysis and that his conclusions are the results of that analysis, citing portions of Dr. Kaza's testimony. Reply 1–4; *see* Ex. 1003 ¶¶ 59–60. Based on our review, we credit the testimony of Dr. Kaza and we are persuaded that the Petition provides sufficient rationale to combine the references.

We note that the Federal Circuit has viewed an "apparent reason to combine," in conjunction with the technical ability to optimize, as sufficient to reach a conclusion of obviousness. *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1350 (Fed Cir. 2009). We are persuaded that a sufficient rationale offered to support a combination of references is highly dependent on the natures and teachings of those references. For example, if two references disclose nearly identical embodiments with only obvious variations, the rationale to combine that must be offered would be lower as compared to combining two references having few similarities or references which are from widely different fields of endeavor.

In the instant case, we are persuaded that the similarities of the disclosures and aims of the cited references would have made the combinations obvious to one of ordinary skill in the art. With respect to Hodge and Crites, both discuss the use of their systems in penal institutions or correctional facilities. *Compare* Ex. 1006 ¶ 42, *with* Ex. 1008, 1:63–67. Given the similarities in purposes of the systems, one of ordinary skill in the art would not need a high degree of motivation to incorporate one aspect of one into the other, absent some teachings away or impossibility of the incorporation. *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). With respect to Hodge and Crites, we agree with Petitioner that it would have been predictable for one of ordinary skill in the art to incorporate elements, such as passive monitoring of Hodge (Pet. 20), into the system of Crites. Similarly, the Petition addresses Krebs as "evidenc[ing] relationships of a person to a threat group" (Pet. 18), which is argued as being analogous to acquiring information related to suspect group members, as discussed in Crites. *Id.; compare* Ex. 1008, 4:41–44 (discussing a security threat group), *with* Ex. 1009, 49 (discussing mapping in fraud and criminal conspiracy cases). In view of Petitioner's suggestions that a person of ordinary skill in the art could have used known methods to combine the disclosed functions and the combination would have provided predictable results, we conclude that the similarities in the cited references render the combination to be obvious.

Patent Owner also asserts that the claims as issued were found patentable over Crites during the prosecution of those claims. PO Resp. 6. Patent Owner continues that "the Crites reference was specifically considered and addressed by the Examiner during the prosecution history of

the ’457 patent,” and that Crites “does not render obvious to one ordinarily skilled in the art at the time of applicant’s invention nor anticipate the combination of claimed elements including the limitations of independent claims 1, 8, 16, and 17.” *Id*. (addressing application claims). We addressed similar arguments in the Decision to Institute, where we stated that “it is not clear that [the examiner] considered the specific disclosures of the cited references in the Petition,” and that “the Examiner’s analysis can only be partially helpful in terms of the specific grounds now considered.” Paper 10, 16. We remain convinced that the Examiner’s prior consideration has no preclusive effect on considering Crites in this proceeding in a ground of unpatentability. Here, for example, Petitioner relies on a combination of Crites, Krebs, and Hodge for conveying the searching limitation recited in independent claim 1. Pet. 16–20. By contrast, the Examiner determined that Crites did not render obvious that specific limitation. Ex. 1002, 79.

Patent Owner also argues that the Petition fails to demonstrate the disclosure of searching for “individuals called by the detainee” and “individuals who visit the detainee,” as recited in claims 1 and 14, in the cited references. PO Resp. 11–17. Patent Owner continues that Crites fails to disclose individuals called by an inmate as a searchable field, where Crites limits the list of search parameters for its database. *Id*. at 11–12. Additionally, Patent Owner argues that Krebs’s disclosure of the observation of meetings and attendance at common events is insufficient, even in combination with Crites, to demonstrate “individuals who visit the detainee,” and that Krebs acknowledges that the meetings and attendance data are often impossible to gather. *Id*. at 14–17. We do not agree with Patent Owner’s arguments.

Claim 1 recites, in part, "searching one or more databases for information associated with the detainee, wherein the one or more databases include call record databases, and wherein the information associated with the detainee includes individuals called by the detainee [and] individuals who visit the detainee." Claim 1 does not provide any recitations that any "information associated with the detainee" must be a searchable field, only that such information can be searched for using the one or more databases. Thus, if a search of the records in a database can return certain information by searching via another parameter, that certain information can be obtained through a search of the database. We are not persuaded that claim 1 requires more. Additionally, claim 14 does not recite a process of searching, only monitoring of records, such that Patent Owner's argument is not directly applicable to claim 14.

With respect to "individuals who visit the detainee," we credit the testimony of Dr. Kaza and we find that Krebs discloses that observations of meetings occur, even if some information may be impossible to gather. *See* Ex. 1003 ¶ 67. We are not persuaded that the difficulty in gathering some information would dissuade persons of ordinary skill in the art from considering the observation of meetings and attendance at common events or appreciating their value. Furthermore, we agree with Petitioner that any "difficulty of observing in-person meetings vanishes," when considered in view of Crites where prisoner monitoring involves known inmates in a closed environment. Reply 15. As well, claim 1 does not require that "individuals who visit the detainee" must occur from people outside the facility, where such internal meeting information "do not have the same advantages as monitoring the visitations of detainees with people from

outside of the facility." PO Resp. 17. Although such internal information may be less useful, we can find no such requirement recited in claims 1 and 14.

e. Conclusion

Accordingly, we hold that Petitioner has shown by a preponderance of the evidence that claims 1–5 and 14–17 would have been obvious under 35 U.S.C. § 103 in view of Crites, Krebs, and Hodge.

E. Asserted Obviousness of Claims 6–13 - Crites, Krebs, Hodge, and Eisen

Petitioner contends claims 6–13 of the '457 Patent are unpatentable under 35 U.S.C. § 103 in view of Crites, Krebs, Hodge, and Eisen. Pet. 28–47. Patent Owner disputes Petitioner's position with regards to these claims, arguing that Eisen is not analogous art to the claimed invention, and that the cited references fail to disclose all the elements required by challenged claims 7–10. PO Resp. 17–24. We have reviewed the Petition, the Patent Owner's Response, and Petitioner's Reply, as well as the relevant evidence discussed in those papers. In view of the overview of Crites, Krebs, and Hodge provided above (*see supra* Sections II.D.1–3) and for reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 6–13 of the '457 Patent would have been obvious in view of Crites, Krebs, Hodge, and Eisen.

1. Overview of Eisen

Eisen discloses a method of detecting fraudulent or erroneous data from transaction data set, where the transaction data set is queried based on key values, with the results of the queries added to a suspect transaction

database. Ex. 1008, Abstract. Eisen details that its underlying assumption is that an entity submitting fraudulent transaction information may reuse at least part of the same information from transaction to transaction. *Id*. ¶ 21. In an example, Eisen discloses that if one begins with a compromised credit card number, an email address associated therewith can be used to determine if further uses of the address may lead to other transactions that may be fraudulent. *Id*. ¶ 9. The second transaction can be linked to other potential transactions, and so on, such that a "tree" of information combinations can be derived from the initial data element. *Id*.

2. Analysis

With respect to independent claims 6 and 13, those claims are similar to claim 1, as discussed above, but both recite that multiple databases are searched with first, second or third levels of information, or are obtained through the searches. With respect to elements of claims 6 and 13 similar to elements recited in claims 1 and 14, Petitioner relies on the same disclosures of Crites, Krebs, and Hodge discussed above with respect to the latter claims. Pet. 33–37, 44–47. We discuss the Petitioner's rationale for teaching or suggesting the multiple databases and levels of information below.

Petitioner concedes that Crites is not explicit in detailing a graduated database search, i.e. using the results of the first search to perform a second search, because Crites does not detail that the phone number(s) that the inmate is calling was obtained from the first search. Pet. 29. Petitioner, however, argues that a person of ordinary skill in the art would have looked to the prior art on how to perform relationship analysis, which are taught by Eisen. *Id*. Petitioner continues that Eisen and the other references, Crites,

Krebs, and Hodge, are in the same field of security threat detection and use similar network analysis methods. *Id*. at 32. Petitioner also argues that the disclosure of Crites would have led ordinarily skilled artisans to the methods of Eisen and the combination would have been predictable to a person of ordinary skill in the art. *Id*.

As discussed in detail below, Petitioner contends the combined disclosure of Crites, Krebs, Hodge, and Eisen, as summarized above, teaches or suggests each limitation of claims 6–13 of the '457 Patent. Pet. 33–47. Petitioner further contends that "[a] person of ordinary skill in the art would have been motivated to combine Crites, Krebs, and Hodge with Eisen because Eisen is in the same field (security threat detection/prevention) and uses a substantially similar network analysis method (identifying members of a class based on their relationships to known class members)." Pet. 32; *see* Ex. 1003 ¶ 85. Petitioner supports its position with the declaration of Dr. Kaza, who testifies that Crites suggests performing graduated database searches, but does not explicitly disclose how to perform such searches, such that one of ordinary skill in the art would have applied Eisen "which explicitly discloses how graduated database searches can be utilized to identify associations with a known security threat group member." Ex. 1003 ¶ 85.

a. Claims 6–13

Petitioner contends the combined disclosures of Crites, Krebs, Hodge, and Eisen, as summarized above, teaches or suggests each limitation of independent claims 6 and 13 of the '457 Patent. Pet. 28–37, 44–47. In addition, Petitioner contends that the same combined disclosures teach or suggest each limitation of dependent claims 7–12. Pet. 37–44.

Patent Owner argues that the Petition fails to demonstrate a proper reason to combine the reference with respect to this ground as well. PO Resp. 9–11. We have addressed this argument above and need not respond to it with respect to this ground as well. *See supra* Section II.D.4.a. Patent Owner also argues that Eisen is not analogous art to the claimed invention, and that the cited references fail to disclose all the elements required by challenged claims 7–10. *Id*. at 17–24. We address each argument below.

i) Eisen is analogous art

Patent Owner argues that Eisen is not analogous to the claimed invention and each of the other cited prior art references. *Id*. at 17–18. Patent Owner cites to *In re Klein*, 647 F.3d 1341, 1348 (Fed. Cir. 2011), for its citations of two tests to define the scope of analogous prior art. *Id*. In an obviousness analysis, "[t]wo separate tests define the scope of analogous prior art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *Klein*, 647 F.3d at 1348. Patent Owner argues that Eisen is nonanalogous under either test, because Eisen is directed to analysis to detect fraud or error based on credit card information, different from the purpose of the '457 Patent, and is directed to a very different problem than the '457 Patent. PO Resp. 19–20. We do not agree.

Even if we were to accept that Eisen is directed to a different field of endeavor than the '457 Patent, we are persuaded that Eisen is reasonably pertinent to the particular issues addressed and claimed in the '457 Patent. Eisen explicitly discloses how graduated database searches can be utilized to

identify associations within a group. Pet. 30–31 (citing Ex. 1007, ¶¶ 17–21). Crites suggests graduated database searches (Ex. 1008, 5:62–6:3), such that looking to other references detailing those types of searches would have been obvious to those of ordinary skill in the art. Furthermore, we agree with Petitioner that both Crites and Eisen, as well as the '457 Patent, utilize the process of determining a suspect record and then searching a database for other records having a relationship to that suspect record. Reply 7.

Furthermore, as informed by *KSR*, the scope of analogous art must be construed broadly. *Wyers v. Master Lock Co.*, 616 F.3d 1231, 1238 (Fed. Cir. 2010). In addition, Dr. Akl identifies technology that is relevant to the '457 Patent as including telecommunications and information systems or databases (Ex. 1019, 77:4–9), which would include database systems, such as those discussed in Eisen, that are used in fraud detection. Lastly, we agree with Petitioner that Eisen discloses that it methods can be applied to identify "improper transactions, entries and/or **identities**," and is useful "in rooting out terrorist operations." Reply 6–7 (citing Ex. 1007 ¶¶ 2, 5). As such, we are persuaded that Eisen is analogous to the claimed invention and each of the other cited prior art references, and can be properly combined with the other cited references in determining obviousness.

ii) Elements of claims 7–10

Patent Owner argues that Eisen fails to disclose the subject matter of claims 7–10. PO Resp. 21–24. Patent Owner argues that "Eisen discloses something different than what is disclosed in the '457 patent," because Eisen uses key values to narrow the possible number of fraudulent transactions down to a cluster, whereas the '457 patent uses the obtained information to broaden the network of possible identifications. *Id*. We do not agree. As

Petitioner points out, Eisen uses the key values of the found records for further searching to find additional records, thus "broadening" the search. Reply. 17–18; Ex. 1003 ¶ 83. Additionally, we are not persuaded that using information from fraudulent transactions to determine other transactions would necessarily be narrowing as Patent Owner contests. Moreover, claims 7–10 merely detail specific first and second levels of information (i.e., individuals who visited the detainee, and other detainees visited by those individuals, per claim 10) recited in claim 6, such that if the combination of references teaches or suggest the use of first and second levels of information, and those specific types of information, it would have been obvious to apply those specific types of information, thus rendering claims 7–10 obvious.

b. Conclusion

After consideration of the language recited in claims 6–13 of the '457 Patent, the Petition, the Patent Owner Response, and Petitioner's Reply, as well as the relevant evidence discussed in those papers, we find that one of ordinary skill in the art would have considered these claims obvious over Crites, Krebs, Hodge, and Eisen. Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that claims 6–13 of the '457 Patent are unpatentable under 35 U.S.C. § 103(a) in view of Crites, Krebs, Hodge, and Eisen.

III. CONCLUSION

We conclude Petitioner has shown by a preponderance of the evidence that claims 1–17 of the '457 Patent would have been obvious in view of the following prior art references:

Claims 1–5 and 14–17 under 35 U.S.C. § 103(a) as being unpatentable in view of Crites, Krebs, and Hodge; and

Claims 6–13 under 35 U.S.C. § 103(a) as being unpatentable in view of Crites, Krebs, Hodge, and Eisen.

IV. ORDER

For the reasons given, it is

ORDERED that, by a preponderance of the evidence, claims 1–17 of the ’457 Patent are unpatentable; 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.

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