Trials@uspto.gov
571-272-7822

Paper No. 52
Entered: December 6, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC.,
Petitioner,

v.

WINDY CITY INNOVATIONS, LLC,
Patent Owner.

Case IPR2016-01159[1]
Patent 8,694,657 B1

Before KARL D. EASTHOM, DAVID C. MCKONE, and MELISSA A. HAAPALA, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

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

[1] Case No. IPR2017-00659 has been joined with this proceeding.

I. INTRODUCTION

A. Background

Facebook, Inc. ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 189, 334, 342, 348, 465, 580, 584, and 592 of U.S. Patent No. 8,694,657 B1 (Ex. 1001, "the '657 patent"). Windy City Innovations, LLC ("Patent Owner") filed a Preliminary Response (Paper 6, "Prelim. Resp.").

Pursuant to 35 U.S.C. § 314, in our Institution Decision (Paper 7, "Dec."), we instituted this proceeding as to claims 189, 334, 342, 348, 465, 580, 584, and 592.

Patent Owner filed a Patent Owner's Response (Paper 22, "PO Resp."), and Petitioner filed a Reply to the Patent Owner's Response (Paper 31, "Reply").

Petitioner relies on the Declarations of Tal Lavian, Ph.D. (Ex. 1002, "Lavian Decl."; Ex. 1021, "2nd Lavian Decl."). Patent Owner relies on the Declaration of Jaime G. Carbonell, Ph.D. (Ex. 2005, "Carbonell Decl.").

On January 12, 2017, Petitioner filed a petition seeking *inter partes* review of claims 203, 209, 215, 221, 477, 482, 487, and 492 of the '657 patent and sought to join that proceeding to this proceeding. IPR2017-00659, Paper 2 ("the '659 Pet."), Paper 3 (Mot. for Joinder). We instituted a trial in that proceeding for all challenged claims and joined it to this proceeding. Paper 34 (the "'659 Dec."). Petitioner relies on the Declaration of Dr. Lavian in the '659 proceeding (IPR2017-00659, Ex. 1002 ("Lavian '659 Decl.")).

As to the additional claims challenged in the '659 Petition, Patent Owner filed a Supplemental Patent Owner's Response (Paper 45, "Supp. PO

Resp.") and Petitioner filed a Supplemental Reply (Paper 46, "Supp. Reply").

An oral argument was held on October 19, 2017 (Paper 51, "Tr.").

We have jurisdiction under 35 U.S.C. § 6. This Decision is a final written decision under 35 U.S.C. § 318(a) as to the patentability of claims 189, 203, 209, 215, 221, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592. Based on the record before us, Petitioner has proved, by a preponderance of the evidence, that claims 189, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592 are unpatentable, but has not proved that claims 203, 209, 215, and 221 are unpatentable.

B. Related Matters

The parties indicate that the '657 patent has been asserted in *Windy City Innovations, LLC v. Microsoft Corp*., Civ. A. No. 15-cv-00103-GM (W.D.N.C.) (transferred to 16-cv-1729 (N.D. Cal.)), and *Windy City Innovations, LLC v. Facebook, Inc.*, Civ. A. No. 15-cv-00102-GM (W.D.N.C.) (transferred to 16-cv-1730 (N.D. Cal.)). Pet. 1; Paper 4, 1. The '657 patent is the subject of an *inter partes* review petition in IPR2016-01155. Paper 4, 1. IPR2017-00622, also challenging the '657 patent, has been joined to IPR2016-01155. The '657 patent also was the subject of IPR2017-00606 and IPR2017-00656, which Microsoft Corp. filed and sought to join with IPR2016-01155 and this proceeding, respectively, prior to settling with Patent Owner. Patents related to the '657 patent are subjects of additional *inter partes* review petitions.

C. Asserted Prior Art References

Petitioner relies on the following prior art:

U.S. Patent No. 6,608,636 B1, issued Aug. 19, 2003, filed May 13, 1992 (Ex. 1003, "Roseman");

Published European Pat. App. No. 0 621 532 A1, published Oct. 26, 1994 (Ex. 1004, "Rissanen");

Ronald J. Vetter, *Videoconferencing on the Internet*, IEEE COMPUTER SOCIETY 77–79 (Jan. 1995) (Ex. 1005, "Vetter");

MARY ANN PIKE ET AL., USING MOSAIC (1994) (Ex. 1006, "Pike"); and

TOM LICHTY, THE OFFICIAL AMERICA ONLINE FOR MACINTOSH MEMBERSHIP KIT & TOUR GUIDE (2nd ed. 1994) (Ex. 1007, "Lichty").

D. The Instituted Ground

We instituted a trial on the ground of unpatentability of claims 189, 203, 209, 215, 221, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592 as obvious, under 35 U.S.C. § 103(a), over Roseman, Rissanen, Vetter, Pike, and Lichty. Dec. 36; '659 Dec. 15.

E. The '657 Patent

The '657 patent describes an Internet "chat room." According to the '657 patent, it was known to link computers together to form chat rooms in which users communicated by text, graphics, and multimedia, giving the example of "America On Line." Ex. 1001, 1:33–37. The '657 patent acknowledges that chat rooms have been implemented on the Internet, albeit

with "limited chat capability," but contends that the complex chat room communications capable with Internet service providers had not been developed on the Internet because "[t]he Internet was structured for one-way communications analogous to electronic mail, rather than for real time group chat room communications" and because "there is no particular control over the platform that would be encountered on the Internet." *Id.* at 1:38–44, 1:50–52.

Figure 1, reproduced below, illustrates an embodiment of the invention:

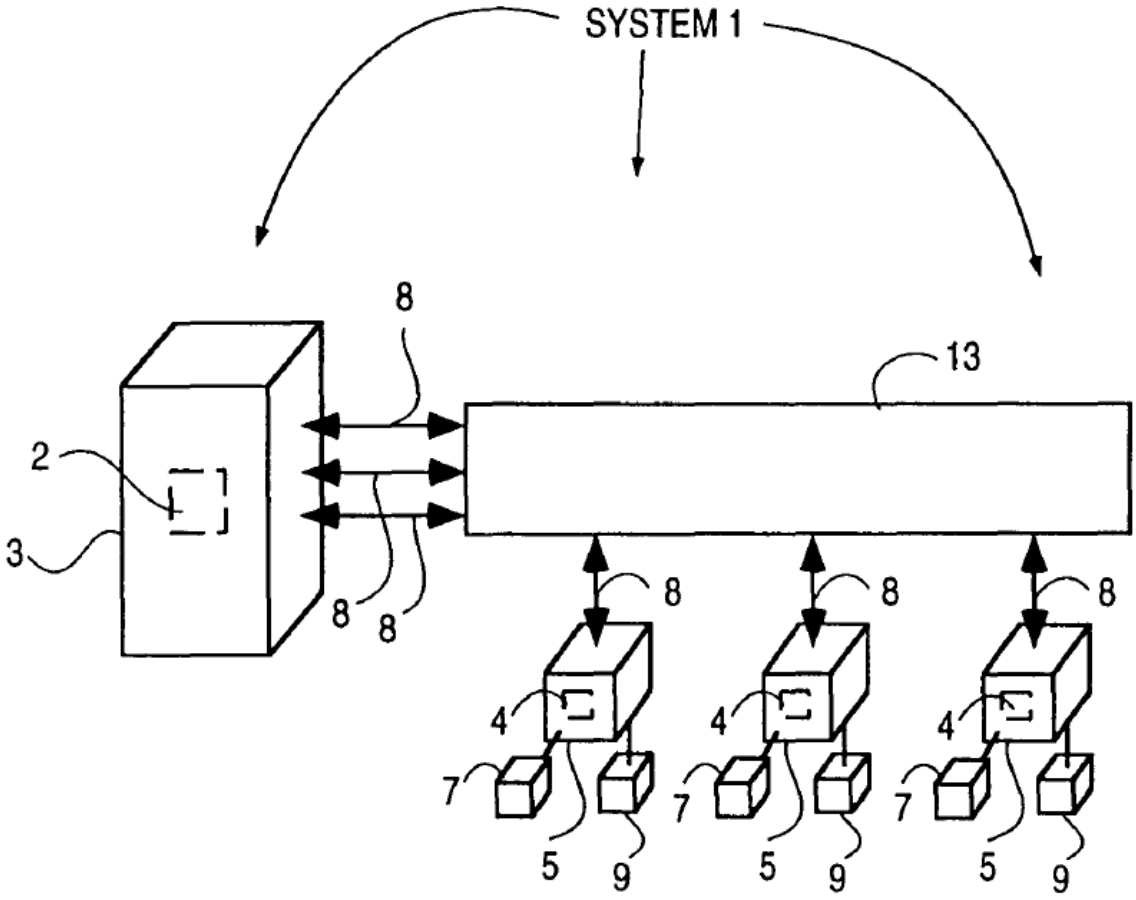

Figure 1 is a block diagram showing the components and data flow of a computerized human communication arbitrating and distributing system.

Id. at 4:36–40. The system includes controller computer 3 in communication with several participator computers 5 (e.g., IBM-compatible personal computers) over connection 13 (e.g., an Internet connection or a World Wide Web connection). *Id.* at 4:41–60.

Controller computer 3 runs under the control of controller software 2, and the software arbitrates, in accordance with predefined rules (including user identities), which participator computers 5 can interact in a group through the controller computer, and directs real-time data to the members of the group. *Id.* at 4:61–67. The software uses "identity tokens," or pieces of information associated with user identity, in the arbitration. *Id.* at 7:49–52. The tokens are stored in a memory in a control computer database along with personal information about the users. *Id.* at 7:52–57.

The arbitration can be used to control a user's ability to join or leave a group of participator computers, to moderate communications involving the group, and to see other users in the group. *Id.* at 7:62–8:6. Arbitration using tokens also can be used to perform censorship:

> Censorship, which broadly encompasses control of what is said in a group, is also arbitrated by means of the tokens. Censorship can control of access [sic] to system 1 by identity of the user, which is associated with the user's tokens. By checking the tokens, a user's access can be controlled per group, as well as in giving group priority, moderation privileges, etc.
>
> Censorship also can use the tokens for real time control of data (ascii, text, video, audio) from and to users, as well as control over multimedia URLs—quantity, type, and subject.

Id. at 8:11–19.

According to the specification, "[t]he present invention comprehends communicating all electrically communicable multimedia information as

Message 8, by such means as pointers, for example, URLs. URLs can point to pre-stored audio and video communications, which the Controller Computer 3 can fetch and communicate to the Participator Computers 5." *Id.* at 5:11–16.

Claims 189 and 465, reproduced below, are the only independent claims challenged in this proceeding:

> 189. A method of communicating via an Internet network by using a computer system including a controller computer and a database which serves as a repository of tokens for other programs to access, thereby affording information to each of a plurality of participator computers which are otherwise independent of each other, the method including:
>
> affording some of the information to a first of the participator computers via the Internet network, responsive to an authenticated first user identity;
>
> affording some of the information to a second of the participator computers via the Internet network, responsive to an authenticated second user identity; and
>
> determining whether the first user identity and the second user identity are able to form a group to send and to receive real-time communications; and
>
> determining whether the first user identity is individually censored from sending data in the communications, the data presenting at least one of a pointer, video, audio, a graphic, and multimedia by determining whether a respective at least one parameter corresponding to the first user identity has been determined by an other of the user identities; and
>
> if the user identities are able to form the group, forming the group and facilitating sending the communications that are not censored from the first participator computer to the second participator

computer, wherein the sending is in real time and via the Internet network, and wherein, for the communications which are received and which present an Internet URL, facilitating handling the Internet URL via the computer system so as to find content specified by the Internet URL and presenting the content at an output device of the second participator computer, and

if the first user identity is censored from the sending of the data, not allowing sending the data that is censored from the first participator computer to the second participator computer.

465. An Internet network communications system, the system including:

a computer system including a controller computer and a database which serves as a repository of tokens for other programs to access, thereby affording information to each of a plurality of participator computers which are otherwise independent of each other, the computer system in communication with a first of the participator computers responsive to a first authenticated user identity and with a second of the participator computers responsive to a second authenticated user identity, wherein the computer system

determines whether the first user identity and the second of the user identity are able to form a group to send and to receive real-time communications; and

determines whether the first user identity, is individually censored from sending data in the communications, the data presenting at least one of a pointer, video, audio, a graphic, and multimedia by determining whether a respective at least one parameter corresponding to the first user identity has been determined by an other of the user identities; and

> if the user identities are determined to be able to form the group, forms the group and facilitates sending the communications that are not censored from the first participator computer to the second participator computer, wherein the sending is in real time and via the Internet network, and wherein the computer system facilitates, for the communications which are received and which present an Internet URL, handling the Internet URL via the computer system so as to find content specified by the Internet URL and facilitates presenting the content at an output device of the second participator computer; and
>
> if the first user identity is censored from sending the data, does not facilitate sending the data that is censored from the first participator computer to the second participator computer.

II. ANALYSIS

A. Claim Construction

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). Nevertheless, the '657 patent is expired. "[T]he Board's review of the claims of an expired patent is similar to that of a district court's review." *In re Rambus Inc.*, 694 F.3d 42, 46 (Fed. Cir. 2012) (citations omitted). District courts construe claims in accordance with their ordinary and customary meanings, as would be understood by a person of ordinary skill in the art, in the context of the specification. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

1. Constructions in the Institution Decision

In the Institution Decision, we preliminarily construed the following terms (Dec. 7–13):

Claim Term	**Preliminary Construction**
"token"	"piece of information associated with user identity"
"database"	"a collection of logically related data"
"censor"	"control what is said in a group"
"the first user identity is individually censored from sending data"	refers to control of data sent by the at least one of the user identities, individually, and is not limited to data suppressed based on the content of those data or by a moderator

Patent Owner adopts our construction of "token" (which Petitioner initially proposed) PO Resp. 7–8, and challenges our construction of "database," *id.* at 8–12. Petitioner accepts our construction of "database" and presents arguments in favor of it. Reply 3–7. The parties do not address further our constructions of "censor" and "the first user identity is individually censored from sending data." We maintain our constructions of "token," "censor," and "the first user identity is individually censored from sending data" on the complete record. We address the construction of "database," below.[2]

[2] Although this decision analyzes the claims under the *Phillips* standard, in related proceedings, we reach substantially the same constructions of these claim terms under the broadest reasonable interpretation.

2. "database"

In the Petition, relying on Dr. Lavian's testimony, Petitioner argues that "[a] person of ordinary skill in the art would have understood the claimed 'database' to simply refer to a stored collection of tokens. The '657 patent does not require that the database be any particular type, such as relational." Pet. 18 (citing Ex. 1002 ¶ 50). Dr. Lavian, in turn, relies on the specification's description of tokens being "stored in memory in a control computer database, along with personal information about the user, such as the user's age." Ex. 1002 ¶ 50 (citing Ex. 1001, 7:52–54).

Patent Owner urges a construction that is narrower in two regards: (1) Patent Owner contends that a database is a collection of logically-related data "which is stored with persistence"; and (2) Patent Owner contends that a database includes "associated tools for interacting with the data such as a DBMS." PO Resp. 12.

Patent Owner's primary argument in favor of construing "database" to require these limitations is that it filed, in a related application before the Patent Office, an information disclosure statement (IDS) that supports its construction. *Id.* at 9–10 (citing Ex. 2008). The IDS was submitted to the Patent Office in pending application 14/246,965 on January 1, 2017, after Petitioner filed the Petition and shortly after we instituted this proceeding and preliminarily rejected Patent Owner's claim construction arguments. In the IDS, Patent Owner argued, *inter alia*, that "attention is respectfully drawn to the defendants' contentions[3] of invalidity in view of the database

[3] This appears to be a reference to invalidity contentions filed in a related district court proceeding.

and 'other programs' limitations that are common to all claims" and that "[b]ecause the database affords information to other programs and computers, it must store the data, such as the tokens, with persistence, such that tools can interact with the data such as a DBMS when providing the data to the participator computers of the authenticated users." Ex. 2008, 2. Patent Owner argues that we must accept its construction pursuant to *Verizon Services Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1306 (Fed. Cir. 2007), which held that, in some circumstances, a statement made by a patentee in the prosecution history of a related application can operate as a disclaimer, even if the disclaimer occurred after the patent-in-suit had issued. PO Resp. 9–10.

Although we doubt that the Federal Circuit intended that an IDS in a related application should be a vehicle for overturning a disadvantageous

claim construction in an adversarial proceeding,[4] we need not reach that issue. As the Federal Circuit also held, "[t]o operate as a disclaimer, the statement in the prosecution history must be clear and unambiguous, and constitute a clear disavowal of claim scope." *Verizon*, 503 F.3d at 1306. That is not the case here. The statements in Patent Owner's IDS are not in response to any rejection by the Examiner, do not accompany any amendments, and are not directed to any particular claims, other than a general statement that the statements apply to "all claims."[5] Ex. 2008, 2.

Although Patent Owner argues that the IDS "supports the construction that a database is limited" in the manner that it argues, Patent Owner does

[4] *See Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1270 (Fed. Cir. 1986) ("A citation may be made at 'any time' either during prosecution or, as here, after the patent has issued. If made during prosecution, it is clear that the statements may be considered for claim interpretation purposes, just as any other document submitted during prosecution. If submitted after issuance, the answer, again, is it may be considered. To say that it *may* be considered is not to say what *weight* statements in the Citation are to be accorded. For example, a Citation filed during litigation might very well contain merely self-serving statements which likely would be accorded no more weight than testimony of an interested witness or argument of counsel. Issues of evidentiary weight are resolved on the circumstances of each case."); *Phillips*, 415 F.3d at 1317 ("Like the specification, *the prosecution history provides evidence of how the PTO and the inventor understood the patent*. . . . Yet because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." (emphasis added)).

[5] Adding to the ambiguity, it is not clear whether the IDS's reference to "all claims" refers to the claims in the pending application or the claims discussed in the defendants' contentions of invalidity to which the sentence is directed.

not contend that the IDS constitutes a disclaimer of any subject matter. PO Resp. 9. We find that the IDS does not contain a "'clear and unmistakable' disclaimer that would have been evident to one skilled in the art." *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1064 (Fed. Cir. 2016). Therefore, we are not persuaded that we should apply prosecution history disclaimer to limit the scope of the term "database."

Patent Owner also cites to the testimony of Dr. Carbonell that "[t]wo hallmarks of a database are (1) persistence of the data, and (2) interactivity with the data via a database management system (DBMS)." *Id.* at 10 (quoting Ex. 2005 ¶ 33). As Petitioner points out (Reply 1–2), Dr. Carbonell's testimony on this point appears to be a copy of the testimony of Dr. Bajaj, who submitted a declaration in support of Patent Owner's Preliminary Response (*compare* Ex. 2005 ¶ 33, *with* Ex. 2001 ¶ 20), although Dr. Carbonell testified that he was unaware of Dr. Bajaj's declaration (Ex. 1016, 132:2–12). In any case, as Petitioner points out, Dr. Carbonell marshals the same evidence that did not persuade us at the institution stage without adding any additional evidence or even acknowledging our concerns with Dr. Bajaj's evidence. Reply 2 n.1.

In particular, Patent Owner and Dr. Carbonell cite to the Macmillan Encyclopedia of Computers (Ex. 2004). PO Resp. 10–11; Carbonell Decl. ¶ 33. In the portion included in Exhibit 2004, The Macmillan Encyclopedia states that "[a] database system is a collection of related records stored in a manner that makes the storage and retrieval of the data very efficient. The four well-known data models for databases are the hierarchical, network, relational, and object-oriented models." Ex. 2004, 230. This definition does not require persistence and Patent Owner does not explain why persistence

should be inferred from this definition. Moreover, as we observed in the Institution Decision, the Macmillan definition is consistent with the definition of "database" given by the IEEE Dictionary of Standards Terms. *See* IEEE 100 THE AUTHORITATIVE DICTIONARY OF IEEE STANDARDS TERMS 268 (7th ed. 2000) ("**database (DB)** . . . A collection of logically related data stored together in one or more computerized files.") (Ex. 3001). This definition also does not require persistence. Although this dictionary was published several years after the filing date of the '657 patent, Dr. Lavian testifies that the plain and ordinary meaning of "database" did not change during this time. Ex. 1021 ¶ 11. In support of this testimony, Dr. Lavian cites to a 1991 textbook, which defines "database" as "a collection of interrelated data," yet another definition that does not require "persistence." *See* Ex. 1017, 5. Moreover, we observe that Patent Owner provides no boundaries for "stored with persistence" to meaningfully limit the term. For example, all data accessed and stored by a program while the program is executing has some level of "persistence."

As to a DBMS, Macmillan explains:

> A database management system (DBMS) is a software package. Its main functions are (1) to provide the facility to set up the database, (2) to retrieve and store source data (actual data in the database), (3) to retrieve and store the data about the structure of the database (data dictionary), (4) to provide the facilities to enforce security rules, (5) to back up the database, and (6) to control the concurrent transactions so that one user's environment is protected from others.

Ex. 2004, 231. Patent Owner characterizes the DBMS as "another criteria of a database" that provides interactive querying capability not present in "[s]tandard storage" in temporary or permanent memory. PO Resp. 10–11.

Dr. Carbonell repeats Patent Owner's arguments without citation to evidence and in testimony that largely copies that of Dr. Bajaj. Ex. 2005 ¶¶ 33–36; *see also* Ex. 2001 ¶¶ 20–23. Nevertheless, we read Macmillan to describe a DBMS as software that works with a database, rather than a part of a database or a component that necessarily accompanies a database. Dr. Carbonell's testimony, which does not identify its bases, adds little to Macmillan. *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.").

Patent Owner also argues that the disclosure of the '657 patent imposes "persistence" and DBMS limitations on the claimed database because it describes the database as storing security information such as tokens for other programs to access. PO Resp. 12. Patent Owner does not provide a citation to the '657 patent in support of its argument. Nevertheless, Patent Owner argues, again without citation, that "[o]ne of ordinary skill in the art would have expected that this type of security feature would persist in a location other than in program memory so that other user programs could access the information." *Id.* Finally, Patent Owner argues that the '657 patent describes tokens stored in hierarchies, which, according to Patent Owner, "are typical of database storage organization, and natural schema when storing and managing access to diverse information." *Id.* None of these arguments supports reading persistence or a DBMS into the term "database." We note also that the other claim language, "serves as a repository of tokens for other programs to access," is a requirement we evaluate separately and do not read into the term "database."

As noted in the Institution Decision (at 10), the specification describes a database consistently with the Macmillan and IEEE definitions, explaining that tokens are "pieces of information associated with user identity," that tokens are "stored in memory in a control computer database, along with personal information about the user," and that "[i]n the database, the storage of tokens can be by user, group, and content." Ex. 1001, 7:52–58. The specification does not require a DBMS (or similar software) or impose a persistence requirement.

On the complete record, we maintain our construction of database, namely, "a collection of logically related data." This is the construction most consistent with both the intrinsic evidence and dictionary definitions. However, we note that Petitioner contends, and we find, that the prior art shows a database with persistence and associated tools for interacting with the stored data, as explained below.

B. Asserted Grounds of Unpatentability

A 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." We resolve the question of obviousness 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.[6] *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

In an obviousness analysis, some reason must be shown as to why a person of ordinary skill would have combined or modified the prior art to achieve the patented invention. *See Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 (Fed. Cir. 2008). A reason to combine or modify the prior art may be found explicitly or implicitly in market forces; design incentives; the "interrelated teachings of multiple patents"; "any need or problem known in the field of endeavor at the time of invention and addressed by the patent"; and the background knowledge, creativity, and common sense of the person of ordinary skill. *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1328–29 (Fed. Cir. 2009) (quoting *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418–21 (2007)).

1. Level of Ordinary Skill

Neither party proposes a level of ordinary skill in the art. Nevertheless, both parties' experts testify to similar levels of skill. Specifically, Dr. Lavian testifies that a skilled artisan "would possess at least a bachelor's degree in electrical engineering or computer science (or equivalent degree or experience) with practical experience or coursework in the design or development of systems for network-based communication between computer systems." Ex. 1002 ¶ 13. For his part, Dr. Carbonell testifies that a skilled artisan "would have had a bachelor's degree in

[6] The record does not include arguments or evidence regarding objective indicia of nonobviousness.

computer science (or a related field) and at least one year of work experience in programming in computer communication methods" and notes that his "opinions herein would not change even if the person having ordinary skill in the art were to be found to have the level of skill proposed by Dr. Lavian." Ex. 2005 ¶ 18. We adopt Dr. Lavian's proposal, as it is consistent with the level of skill reflected in the prior art of record. Nevertheless, we discern no material difference between his proposal and that of Dr. Carbonell. Thus, our findings and conclusions would be the same under either proposal.

2. Scope and Content of the Prior Art

Petitioner contends that the challenged claims would have been obvious over Roseman, alone or in combination with Rissanen, Vetter, Pike, and Lichty. Pet. 5–6; '659 Pet. 9–10.

a. Overview of Roseman

Roseman describes a system for multimedia conferencing, in which parties are linked by both video and audio media. Ex. 1003, Abstract. In Roseman, a conference is represented visually as a common virtual conference table, in which each participant can place a document onto the table electronically, manipulate and write on the document, write on a virtual notepad, and move a pointer to draw other users' attention. *Id.* at 2:38–45, 7:55–8:37. Participants can see the events as they occur. *Id.* at 2:46–47. Figure 9, reproduced below, illustrates an example conference room:

FIG. 9

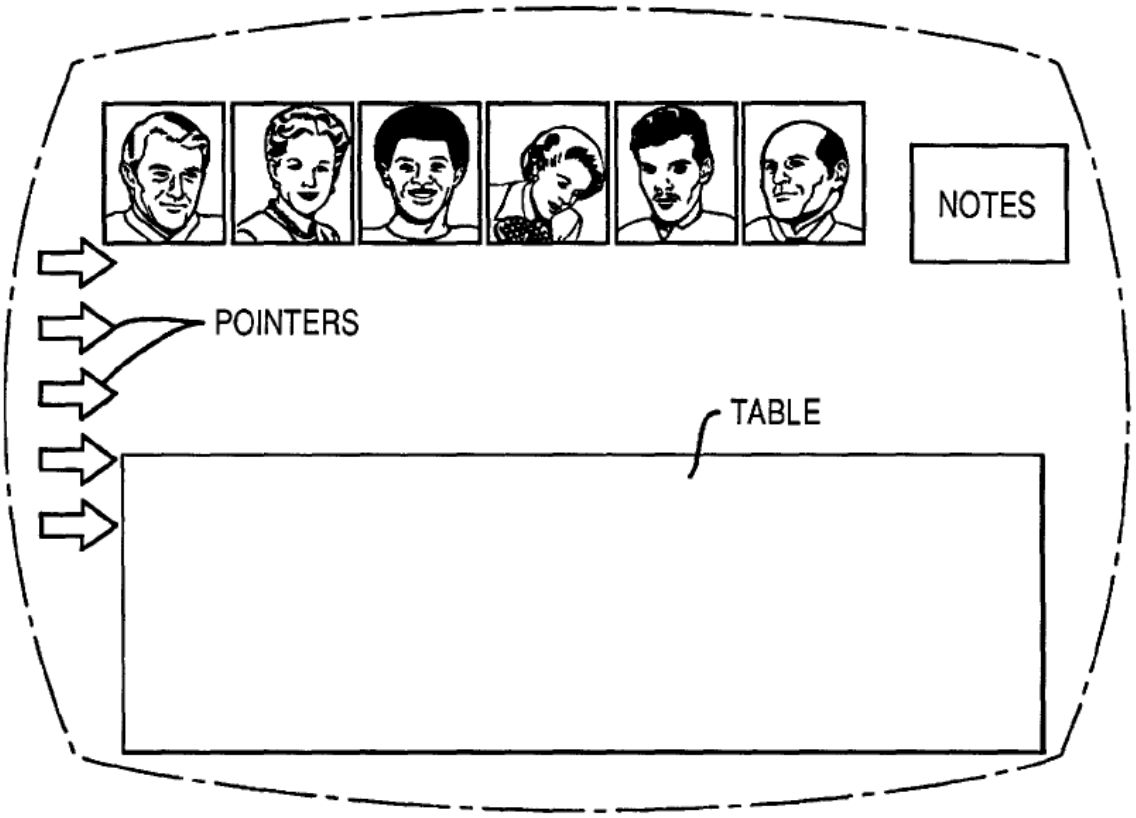

Figure 9 is a picture of a video screen that is generated by a host computer and distributed to all participants in a conference. *Id.* at 2:16–18.

The parties operate their own local computers (which include video cameras and speaker-type telephones) and, when a conference is established, connect to a host computer via commercially available local area networks ("LANs") and wide area networks ("WANs"). *Id.* at 1:34–41. In the conference, the host computer generates a common video screen (e.g., Figure 9, reproduced above) displayed at each of the local computers, and the parties send information, such as drawings, to be displayed on the common screen. *Id.* at 1:42–46. The telephones and video cameras allow the parties to see and speak with each other. *Id.* at 1:47–49.

Roseman includes a pseudo code appendix that details how its features are implemented. *Id.* at 12:66–13:2. According to the pseudo code, a participant interacts with the conference table, for example, by dragging an icon onto the table, which causes a data file to be transmitted to the host. *Id.* at 14:53–55. The host then transmits the icon to the table of each participant. *Id.* at 14:56–57. If another participant activates the icon, the host sends the open file to the tables of all participants. *Id.* at 14:58–61. If the participant drags the icon from the table to his own screen and activates the icon on his screen, the data file is presented to the participant. *Id.* at 14:62–66.

Roseman describes additional features, such as a party's ability to "whisper" to another party without being heard by others in the conference room, and the ability to "pass notes" by dragging a note to the picture of another party, while the other parties are unaware of the note. *Id.* at 9:16–31. Each room may also have "doors" to committee rooms or child-rooms. A child-room is created in the same way as a parent room and is dependent upon the parent room for access and existence. *Id.* at 10:18–23.

A meeting requester creates a conference by selecting the participants, the attributes of the virtual conference room (e.g., virtual equipment and room décor), and the rules of the conference (e.g., whether the requester has absolute control over voice and message interaction of the parties). *Id.* at 3:22–56. According to Roseman, "[t]he conference room itself is actually a combination of stored data and computer programs," the stored data can include conference proceedings, and "both the conference room and the proceedings of the conference have persistence in time." *Id.* at 12:16–25.

The meeting requester specifies a level for each invitation and compiles an invitation list. *Id.* at 9:34–36. Invitations include "keys" specifying the level, e.g., whether the invitation is for the invitee only or can be passed to a delegate or to anyone. *Id.* at 9:35–48. For example, "Level 1 keys may not be passed to any other person and may not be copied" while "Level 2 keys may be passed to exactly one other person and may not be copied." *Id.* at 9:42–45. According to Roseman, "[t]he meeting room 'knows' about each key and its invitation level. Persons with improper keys are not admitted to the room." *Id.* at 9:49–51. A key is distributed electronically as an object attached to the invitation. *Id.* at 9:54–55. To attend a meeting, a party walks a virtual "hallway" to the meeting room and opens the meeting room door by dropping the key onto a virtual "door lock." *Id.* at 10:30–32, 10:61–65. Moreover, the host "can automatically prevent filibustering" by "monitor[ing] the speech of each person, and plac[ing] a limit on the total time allowed to each person." *Id.* at 12:29–38.

b. Overview of Rissanen

Rissanen describes a system and method for validation of spoken passwords. Ex. 1004, 2:17–21. Rissanen's Background of the Invention discusses systems in which "business computer systems are arranged to initially record and store passwords assigned to users," a user is prompted for entry of a password, and "the system compares the keyboard entered password with the stored passwords and enables the user to access the system when the entered password matches the previously stored password." *Id.* at 1:21–28. In Rissanen's proposed solution, "[u]sers are initially entered into a password database stored in the computer system by assigning each

user an account code and a password, such as consisting of a number of numerical digits." *Id.* at 2:26–29.

Petitioner makes clear that "[a]lthough Rissanen also describes using spoken voice passwords, this Petition cites it for its more pedestrian teachings relating to database storage of passwords of any form." Pet. 11.

c. Overview of Vetter

Vetter is an IEEE Computer Society Magazine article discussing available tools for conducting teleconferencing over the Internet. According to Vetter, "[v]ideoconferences are becoming increasingly frequent on the Internet and are generating much research interest." Ex. 1005, 77. Vetter states that "the emerging multicast backbone (or MBone) can efficiently send traffic from a single source over the network to multiple recipients," and, "[a]t the same time, many workstations attached to the Internet are being equipped with video capture and sound cards to send and receive video and audio data streams." *Id.* Vetter concludes that "[t]he price/ performance of these hardware devices has finally reached a level that makes wide-scale deployment possible, which is perhaps the most important factor in the recent growth of videoconferencing applications." *Id.*

Vetter also describes challenges that faced implementation of audio, graphic, and video tools on the Internet, including "disturbing feedback when the microphones at multiple sites were left 'open' during a discussion," taking too much time to broadcast a simple graphic image to multiple participants when using "Whiteboard tools" (collaborative software tools that support a shared desktop whiteboard among a group of distributed users on the Internet), and use of video during a classroom presentation that

caused the workstations in the classroom lab to lock up. *Id.* at 78–79. Vetter also notes that the physical distance between two points on the Internet can be different from the electronic distance between those points. *Id.* at 79.

Vetter discusses in particular a CU-SeeMe platform from Cornell University that supported video and audio conferencing over the Internet, and a CU-SeeMe Reflector that allowed multiparty conferencing with CU-SeeMe. *Id.* at 78.

d. Overview of Pike

Pike is a reference and guide book for using the Web browser Mosaic. Ex. 1006, 2. Petitioner cites to Pike's discussion of URLs and hyperlinks. According to Pike, URLs were developed as a standard way of referencing items on the World Wide Web. *Id.* at 38. "A *URL* is a complete description of an item, containing the location of the item that you want to retrieve. The location of the item can range from a file on your local disk to a file on an Internet site halfway around the world." *Id.*

e. Overview of Lichty

Lichty is a book intended as a "tour guide" of America Online ("AOL"), an online email service, Internet gateway, and community. Ex. 1007, 1–3. Petitioner (Pet. 34) focuses on Lichty's description of AOL's real-time interactive "People Connection" feature. Ex. 1007, 251–78. People Connection includes chat rooms in which a user communicates with others by posting text messages to the other participants in a chat room. *Id.* at 252–55. Lichty describes, in particular, that a People Connection

interface includes an "Ignore" button. *Id.* at 268–69. According to Lichty, "[i]f you wish to exclude a member's comments (or those of all the members in a conversation in which you're not interested), select the member's name in the People in this Room window and click the Ignore button. From then on, that member's text will not appear on your screen." *Id.* at 269; *see also id.* at 510 (glossary definition of "Ignore—(1) Chat blinders; a way of blocking a member's chat from your view in a chat/conference room window. Ignore is most useful when the chat of another member becomes disruptive in the chat room.").

3. Claim 189, Differences Between the Claimed Subject Matter and the Prior Art, and Reasons to Modify or Combine

Petitioner contends that Roseman teaches each limitation of claim 189, but cites the remaining references for the following, should we determine that Roseman lacks such a teaching:

Rissanen for a teaching that tokens could have been stored in a database;

Vetter for a teaching that Roseman's communications could have been over the Internet;

Pike for a teaching of URLs; and

Lichty for a teaching of content filtering, in particular an "ignore" feature, which Petitioner equates to "censoring."

Pet. 6; '659 Pet. 9–10.

a. "A method of communicating via an Internet network by using a computer system including a controller computer and a database which serves as a repository of tokens for other programs to access, thereby affording information to each of a plurality of participator computers which are otherwise independent of each other"

Petitioner contends that Roseman's host computer is a controller computer. Pet. 15. Petitioner identifies Roseman's local computers as independent participator computers and argues that Roseman's various ways of communicating information (placing documents on a virtual table, shared notes, whisper conversations) are examples of affording information to those participator computers. Pet. 14–15, 23–24. As detailed above, Roseman describes a system in which individual computers are connected to a central host computer via a combination of LANs and WANs. Ex. 1003, 3:14–19. According to Roseman, "[t]he host controls many of the events occurring during the conference, as well as those occurring both during initiation of the conference and after termination of the proceedings." *Id.* at 1:50–52. We find that Roseman's host computer is a "controller computer," that Roseman's local computers are "participator computers," and that Roseman's various ways of communicating information from the host to the local computers are examples of "affording information to each of a plurality of participator computers which are otherwise independent of each other," as recited in claim 189.[7]

[7] Patent Owner argues that "Petitioner does not address the issue that the **database** affords information to each of a plurality of computers." PO Resp. 20. Claim 189, however, does not recite that the database affords information to the plurality of computers.

The parties dispute whether Roseman describes "a database which serves as a repository of tokens for other programs to access." First, Petitioner contends that Roseman's "keys" are tokens. Pet. 15–16. As explained above, the parties agree that a "token" is "a piece of information associated with user identity." As also explained above, Roseman describes that an invitor, in setting up a meeting, creates an invitation that includes a key that conforms to an invitation level. Ex. 1003, 9:34–48. A key "is an electronic object attached to the invitation." *Id.* at 9:54–55. The "level" of a key determines who can use it. For example, "Level 1 keys may not be passed to any other person and may not be copied." *Id.* at 9:42–44. According to Roseman, "[t]o open a door with a key, the user drops the key onto the door lock. If the key is valid and the user has the authority to use the key, the door opens and the user is admitted to the room." *Id.* at 10:61–64. Petitioner argues that this evidence shows that Roseman's keys are "pieces of information associated with a user identity," and thus, are "tokens." Pet. 17.

Patent Owner argues that Roseman's keys are not tokens because they are associated only with conference rooms, rather than user identities. PO Resp. 18. Patent Owner points to Roseman's Figure 8, which shows a key associated with "CONFERENCE ROOM 17L (DATE, TIME)." *Id.* In describing Figure 8, however, Roseman explains "the key is, essentially, a block of data, or a code," that can be used if the Invitee may send a delegate, to give the Absentee-Invitee a "key," which enables access to the meeting. Ex. 1003, 6:54–61. "The Requester can leave the key in his local computer, in the form of an icon residing on the display, as shown in FIG. 8. Anyone entering the office can use the key." Ex. 1003, 6:60–63. In this example,

the key can be used only with a particular user's computer. Figure 8 also shows the "key" icon contained within a "vault" icon. *Id.* at 6:64–65. In this example,

> a user must use a "combination" to the "vault" to obtain the "key." In this latter example, the [] "combination" (ie, a pass-code) is obtained from the Absentee-Invitee in some appropriate way. At conference time, the Delegate opens the "vault," obtains the "key," and enters the conference room, by using the key.

Id. at 6:65–7:3. Patent Owner argues that Roseman's keys are "transferable to anyone—like a key to a door lock." PO Resp. 18. Patent Owner contends that Roseman teaches away from keys being associated with a specific user through its description that "***[k]eys may be copied and redistributed, if permitted***, or sent to another individual, if permitted." PO Resp., 18–19 (quoting Ex. 1003, 9:55–57) (emphasis by Patent Owner).

Patent Owner's arguments are not persuasive. Roseman describes keys that are transferable (Level 2 and 3 keys) and keys that are not transferable (Level 1 keys). Ex. 1003, 9:42–48. Petitioner's contentions (Pet. 17) are directed to Level 1 keys, which "may not be passed to any other person and may not be copied." *Id.* at 9:43–44. We find that keys that may not be passed to any other person are keys associated with that person. Figure 8 of Roseman is consistent with this because it describes passing a key to an "Absentee-Invitee" when the Invitee sends a delegate, i.e., a Level 2 key.

As to Level 1 keys, Patent Owner argues that a key is merely an attachment to an invitation, which "offers the only suggestion of an association with specific invitee." PO Resp. 19. Dr. Carbonell testifies (without identifying a basis) that Roseman's system could prevent the

transfer of a key using a "no-transfer or no-duplication policy of such a key to insure that [it] always stays in the possession of the first user," by making transferability an attribute of the key and having the system simply assume, without recording transfers, that a user in possession of a key is authorized to use it. Ex. 2005 ¶ 31. As Petitioner argues, however, the claim construction to which Patent Owner agreed does not require an association between a key and a user to be implemented in a certain way. Reply 16. Even if Dr. Carbonell is correct as to how Roseman's keys would be implemented, such a non-transferable key would still be associated with the person who is prevented from transferring it.

Petitioner further argues that Roseman discloses storing keys in "a database which serves as a repository of tokens," as recited in claim 189, because a meeting room that is accessed by a key "'knows' about each key and its invitation level." Pet. 17–18 (quoting Ex. 1003, 9:49–51). According to Petitioner, a copy of each key must be stored on the host computer for the meeting room to "know" about each key. *Id.* at 18. Petitioner argues that a skilled artisan would have understood a database to be a stored collection of tokens. *Id.* Roseman does not expressly describe storing tokens in a database. Thus, we understand Petitioner to argue that tokens necessarily are stored in a database in light of Petitioner's cited disclosure—in other words, that a database is inherent in Roseman.

Patent Owner, relying on Dr. Carbonell's testimony, argues that a meeting room's knowledge of a key could be implemented using a hash function, which would not have required storage of the key in a database. PO Resp. 20–21 (citing Ex. 2005 ¶ 40). Petitioner characterizes Patent Owner's argument as "based on pure speculation and conjecture" and

inconsistent with Roseman's disclosure. Reply 11–12. Nevertheless, we view both parties' respective theories of Roseman's implementation as speculation. Because Petitioner's position is speculative, it is insufficient to show that a database is inherent in Roseman.[8]

In the alternative, Petitioner argues that Rissanen teaches storing user authentication information, such as user identity information and passwords, in a database, and that such teaching would have been applicable to the keys of Roseman. Pet. 18–20. Petitioner argues that Roseman's keys are analogous to user identity and passwords. *Id.* at 19. Petitioner further argues that storing keys in a database is one of a finite number of known solutions for verifying whether a previously issued key matches to a key later presented by a user to access a conference room. *Id.* at 20 (citing Ex. 1002 ¶¶ 52–53).

Patent Owner admits that "[Rissanen] does disclose a database," but argues that its database is used in a different type of system. PO Resp. 22. Thus, Patent Owner does not contest that Rissanen's database stores user identities and passwords in a persistent manner and is used in conjunction with tools such as a DBMS. For Petitioner, Dr. Lavian testifies that "Rissanen clearly discloses a relational database whose data is stored

[8] Patent Owner also argues that Roseman does not suggest storing keys in a manner that is persistent and does not disclose tools such as a DBMS. PO Resp. 21–22. Roseman does teach that the data associated with its conference rooms is stored in a manner that is persistent, Ex. 1003, 12:16–28, and this at least suggests that keys also would be stored in such a manner. As to a DBMS, we explain above that the construction of "database" does not require this feature. Nevertheless, as explained below, Rissanen teaches a database even under Patent Owner's proposed construction.

persistently and includes tools for interacting with the data such as a DBMS." Ex. 1021 ¶ 37. We find that Rissanen teaches a database that stores data with persistence and tools for interacting with the database.

Nevertheless, Patent Owner argues "[i]f one were going to combine Roseman and Rissenan in order to authenticate an individual (and not merely authenticate a key for a room) the necessary logic would be significantly more complicated." PO Resp. 22. Petitioner does not argue, however, that Rissanen's database would be bodily incorporated into Roseman's system. Rather, Petitioner argues that Rissanen teaches storing data "analogous to and serv[ing] the same purpose as" the keys in Roseman in a database. Pet. 19. *See In re Mouttet*, 686 F.3d 1322, 1332–33 (Fed. Cir. 2012) ("It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements. . . . Rather, the test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art."). Given that Roseman describes using keys to access conference rooms that have persistence, we agree with Petitioner that a database, described in Rissanen as storing similar information for a similar purpose, would be a straightforward and predictable choice for storing Roseman's keys.

The parties also dispute whether Roseman and Rissanen teach that the database "serves as a repository of tokens *for other programs to access*, thereby affording information to each of a plurality of participator computers," as recited in claim 189. Petitioner argues that other programs access the stored collection of tokens, including the various meeting or conference rooms maintained on the host computer. Pet. 20–21. Petitioner

relies on disclosure in Roseman that a meeting room is accessible from a virtual hallway with doors to other meeting rooms. *Id.* (citing Ex. 1003, 9:63–65). According to Petitioner, "[e]ach meeting room . . . contains a number of computer programs, and each meeting room itself can be thought of as a program. These programs access the repository of keys when a user presents a key to obtain access to a conference room." *Id.* at 21.

Patent Owner argues that "Petitioner does not identify any programs that could access a database of tokens and receive information, other than the singular conference calling software running on the host computer of Roseman." PO Resp. 24. According to Patent Owner, "to the extent that there are multiple conference rooms in existence is because the Roseman system has instantiated the same conference room program with different parameters as there is no suggestion that there is different software associated with each conference room." *Id.* Patent Owner does not explain why "other programs" require different software rather than different instantiations of the same software, or point to evidence supporting this view. We are not persuaded that the claims should be limited in this way. Nevertheless, as Petitioner points out (Reply 18), Roseman characterizes its conference rooms as collections of different programs (Ex. 1003, 12:16–18) and makes clear that different conference rooms will have different attributes (different virtual equipment, different tools, different appearances, etc.) (*id.* at 3:42–50, 10:9–12). We find that Roseman at least suggests different conference rooms with different programs, even under Patent Owner's view. These programs determine whether a participant can join a meeting room based on evaluations of keys that, in light of Rissanen, would have been stored in a database. Thus, we find that Roseman and Rissanen

teach "a database which serves as a repository of tokens for other programs to access," as recited in claim 189.

The parties also dispute whether Roseman and Vetter teach "communicating via an Internet network," as recited in claim 189. As explained above, Roseman describes communicating between a host and local computers via commercially available LANs and WANs. Ex. 1003, 1:37–41, 3:14–19. Petitioner contends that a skilled artisan would have understood the Internet to be an example of the commercially available WAN described in Roseman. Pet. 24, 26; Ex. 1002 ¶¶ 53–64. According to Dr. Lavian, "a person of ordinary skill in the art would have recognized the Internet as one of the largest networks for connecting remote computers (if not the largest), making it the obvious Wide Area Network (WAN) for use with Roseman to connect the host and participant computers." Ex. 1002 ¶ 63; *see also* Ex. 2006 (Lavian Dep.), 104:12–105:23 ("Q So Roseman could have been implemented in that 1994 to '96 time frame with ATM technology? A If I'm looking at the specification of Roseman and what specifically Roseman disclose, it disclose as using a -- local computers become connected to host computer via commercially available Local Area Networks and Wide Area Networks. When you're talking about Local Area Networks and Wide Area Networks, this is the Internet. That's different name to Internet. Q So you're saying that Roseman by itself teaches the Internet? A Roseman by itself reference to remote computers commercially available, commercially available that said Internet. Local Area Networks, definitely part of the Internet. Wide Area Networks, different name to the Internet. It's actually the Internet itself. . . .").

Petitioner further argues that Vetter teaches using the Internet to facilitate the same types of computer-based conferencing functions as described in Roseman. Pet. 24–25. Petitioner contends that Vetter itself identifies a reason to combine the teachings of Roseman and Vetter, namely "[v]ideoconferences are becoming increasingly frequent on the Internet" and the CU-SeeMe videoconferencing tool described in Vetter "is also becoming very popular." *Id.* at 25–26 (quoting Ex. 1005, 77 (emphases by Petitioner)).

Patent Owner argues that Vetter does not state that Internet videoconferencing would have been ubiquitous at the time of the invention; rather, Patent Owner argues, the Internet was beginning to support video conferencing. PO Resp. 26. Patent Owner further argues that Vetter discusses difficulties in applying videoconferencing on the Internet, including feedback when participants leave their microphones on, degraded performance when broadcasting simple graphic images, workstations that locked up in a classroom when video streams overwhelmed a network, and counter-intuitive paths that data can take when travelling from one site to another. *Id.* at 26–27 (citing Ex. 1005, 78–79). Dr. Carbonell testifies (without citation) that video traffic on the Internet would experience unpredictable delay that would interfere with re-assembling video streams at the receiving end in real time. Ex. 2005 ¶ 59. Dr. Carbonell testifies (again without citation to evidence) that one would not experience these problems on a private WAN because such a network would be of a more predictable configuration. *Id.* ¶ 61.

Patent Owner also points to a half-page article in a technical magazine by Robert Metcalfe, founder of 3Com, "[p]redicting the Internet's catastrophic collapse" at the end of 1995 due to reasons such as low user

measurements, telecom company monopolies, and security and capacity concerns. PO Resp. 27–28 (quoting Ex. 2009). We agree with Petitioner, however, that "the incorrect prediction of a single individual would not have discouraged (and did not discourage) the industry from using the Internet." Reply 8. Patent Owner offers no persuasive evidence that Dr. Metcalfe's views were shared widely, or at all, by skilled artisans in 1995. Indeed, the article itself suggests the contrary. Ex. 2009 ("Almost all of the many predictions now being made about 1996 hinge on the Internet's continuing exponential growth.").

Citing Dr. Metcalfe's article, Dr. Carbonell testifies that other technologies such as Integrated Services Digital Network (ISDN) and Asynchronous Transfer Mode (ATM) would have been better suited than the Internet to handle video conferencing in the mid-1990's. Ex. 2005 ¶ 60. As explained above, Patent Owner has not explained persuasively why Dr. Metcalfe's magazine article is representative of the views of a skilled artisan. The article itself does not state that there were, or identify evidence of, technologies better suited than the Internet to handle videoconferencing. Ex. 2009. Thus, we are not persuaded that the Internet would have been an inferior technology for videoconferencing in 1995. Moreover, claim 189 on its face does not require videoconferencing. In any case, the Federal Circuit has explained that "just because better alternatives exist in the prior art does not mean that an inferior combination is inapt for obviousness purposes." *Mouttet*, 686 F.3d at 1334.

Roseman expressly states that its local computers and host communicate via a commercially available WAN. We credit Dr. Lavian's testimony that, to the extent that this is not an express reference to the

Internet, the most suitable and obvious commercially available WAN would have been the Internet. We also find that Vetter suggests using the Internet for purposes similar to those of Roseman. Vetter describes an example in which features such as audio, video, and virtual whiteboard tools are used to conference over the Internet. Ex. 1005, 77–78. Thus, to the extent Roseman does not expressly suggest using the Internet, Vetter includes an express suggestion to update a system such as Roseman using modern electronic components, such as the Internet, to gain the commonly understood benefits of such adaptation. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *cf., Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1326–27 (Fed. Cir. 2008) ("The record in this case demonstrates that adapting existing electronic processes to incorporate modern internet and web browser technology was similarly commonplace at the time the '099 patent application was filed."). Vetter reinforces our finding that the Internet would have been the most suitable commercially available WAN for use in Roseman's system.

To be sure, Vetter discusses challenges encountered in implementing videoconferencing on the Internet, but Vetter also teaches that existing tools can be tailored to specific applications on the Internet "so that their limitations can be *promptly recognized and corrected*." Ex. 1005, 79 (emphasis added). The Federal Circuit has recognized that "a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine." *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006). We find that addressing the challenges discussed in Vetter would have been well within the skill of an ordinarily skilled artisan, an engineer experienced in computer

networking. Thus, we find that Roseman, Rissanen, and Vetter teach "[a] method of communicating via an Internet network" as recited in claim 189.

In sum, we find that the combination of Roseman, Rissanen, and Vetter teaches "[a] method of communicating via an Internet network by using a computer system including a controller computer and a database which serves as a repository of tokens for other programs to access, thereby affording information to each of a plurality of participator computers which are otherwise independent of each other," as recited in claim 189.

b. "affording some of the information to a first of the participator computers via the Internet network, responsive to an authenticated first user identity; affording some of the information to a second of the participator computers via the Internet network, responsive to an authenticated second user identity"

As explained above, Roseman describes admitting participants into a conference room when the participants present keys. Ex. 1003, 10:61–65. We find that this teaches "an authenticated first user identity" and "an authenticated second user identity." Additionally, Roseman describes various ways of affording information to local computers of users admitted to the conference room, including as follows:

> Objects (documents) can be shared in the conference room by placing them on the table. This might be done by dragging an icon of the object from the outside (users non-"meeting room" windows) onto the table. Ownership of the object is still maintained. If the object owner wishes, the object may be copied, borrowed by other users, or given to other users. The object may be altered (changed, annotated) by anyone with permission to do so.

Id. at 11:18–26. *See also* Pet. 28–30. As explained in Section II.B.3.a above, Roseman and Vetter teach that such communications can be via an Internet network.

Accordingly, we find that Roseman and Vetter teach these limitations of claim 189. We note that Patent Owner does not contest that Roseman and Vetter teach these limitations.

c. "determining whether the first user identity and the second user identity are able to form a group to send and to receive real-time communications" and

"if the user identities are able to form the group, forming the group and facilitating sending the communications that are not censored from the first participator computer to the second participator computer, wherein the sending is in real time and via the Internet network"

Petitioner contends that Roseman describes several examples of determining whether user identities are able to form groups. Pet. 32–33, 44. Petitioner argues that a host computer uses keys to determine whether users can form a group conference in a conference room. *Id.* at 32. Petitioner also argues that a host can form a "child room" in the same manner. *Id.* Petitioner also points to Roseman's "Whisper Mode" and private note passing features as examples of groups. *Id.* at 32–33. We agree with Petitioner that each of these is an example of Roseman's host computer determining whether multiple user identities are able to form a group.

Petitioner contends that communications in one of Roseman's conference rooms, such as placing documents on a table, drawing on a document, and moving a pointer, take place in real time because they are

communicated to participants as the underlying events occur. *Id.* at 33–34, 45–46. For example, Roseman explains:

> In the invention, the participants share a common virtual conference table. Each participant can
>
> (1) place a document onto the table electronically,
>
> (2) write on the document, draw on it, and otherwise manipulate it, and
>
> (3) move a pointer to different positions on the document, to point to specific parts of it.
>
> All other participants see the [] preceding three events as they occur.

Ex. 1003, 2:38–47. We find that these are specific examples in Roseman of real-time communications sent and received by the participator computers in a group.

As explained in Section II.B.3.a above, Roseman and Vetter teach that such communications can be via an Internet network.

Thus, we find that Roseman and Vetter teach these limitations of claim 189. We note that Patent Owner does not contest that Roseman and Vetter teach these limitations.

d. *"determining whether the first user identity is individually censored from sending data in the communications, the data presenting at least one of a pointer, video, audio, a graphic, and multimedia by determining whether a respective at least one parameter corresponding to the first user identity has been determined by an other of the user identities" and*

"if the first user identity is censored from the sending of the data, not allowing sending the data that is censored from the first participator computer to the second participator computer"

Petitioner argues that Roseman describes several examples of presenting data of different types, including:

a *pointer*: Ex. 1003, 14:53–62 (description of a user placing a file onto a virtual conference table, the host sending an icon (pointer) representing that file to the other participator computers in the group, and a participant clicking on the icon, causing the host computer to present the file to all participants);

audio and video: *id.* at 11:11–16 ("Audio and video connections are made if supported by the user, the room and the other users. A small picture of each user is displayed in the meeting room to indicate presence. If video links are enabled than [sic] the picture may be replaced with a video signal from the user, typically showing the user.");

graphic: *id.* at 8:1–4 ("Each Invitee can transmit a file (of any suitable kind: data, text, or graphic) to the host, and the host will place the file onto the table, where all participants can see it.");

multimedia: *id.* at Abstract (discussing "'multi-media' conferencing").

Pet. 35–36, 38–40. We agree that these are specific examples of data presenting at least one of a pointer, video, audio, a graphic, and multimedia.

As to "determining whether the first user identity is individually censored from sending data in the communications," as recited in claim 189, Petitioner contends that Roseman's host computer can act as a "moderator" to regulate when and/or how long participants can speak during a conference. Pet. 41–42. Specifically, Roseman describes the following:

> 11. Host Can Act as Moderator. The Requestor may wish to hold a conference wherein ideas are freely exchanged among the participants. It is possible that this intent can be defeated by an aggressive person who dominates the conference, and, in effect, maintains a "filibuster."
>
> The host can automatically prevent filibustering, in several ways. One, the host can monitor the speech of each person, and place a limit on the total time allowed to each person. The limit can be overriden by the Requester, or by a vote taken by the host of the other participants.
>
> Two, while one participant is speaking, the host can monitor the audio input of the other participants. The host looks for instances when the speaker refuses to stop talking when the other participants speak. When the host finds such instances, the host issues a message to all participants stating that a filibuster appears to be occurring, and requests a vote as to whether to allow the filibuster to continue.

Ex. 1003, 12:29–45. We find that this is an example of "determining whether the first user identity is individually censored from sending data in the communications . . . by determining whether a respective at least one parameter corresponding to the first user identity has been determined by an other of the user identities." Here, the first user identity is the party seeking to filibuster and the other of the user identities can be the requestor or the other participants who vote.

Petitioner also argues that Lichty teaches censoring. Pet. 42. In particular, Petitioner points to the "Ignore" button of Lichty's user interface. *Id.* Petitioner contends that a first member pressing the ignore button is "an other of the user identities" and the party the first member chooses to ignore corresponds to "the user identity" of claim 189. *Id.* Petitioner argues that both Roseman and Lichty state essentially the same reason for their respective moderator and "ignore" features, namely solving the common problem of dealing with potentially unwanted communications from conference participants. *Id.* at 43–44; *see also* Ex. 1003, 12:29–33 ("The requestor may wish to hold a conference wherein ideas are freely exchanged among the participants. It is possible that this intent can be defeated by an aggressive person who dominates the conference, and, in effect, maintains a 'filibuster.'"); Ex. 1007, 510 ("Ignore is most useful when the chat of another member becomes disruptive in the chat room."). Petitioner argues that Lichty's solution would be equally applicable to Roseman. Pet. 44. We agree with Petitioner that Lichty teaches another example of "determining whether the first user identity is individually censored from sending data in the communications . . . by determining whether a respective at least one parameter corresponding to the first user identity has been determined by an other of the user identities." We find that Lichty's "ignore" feature would have been a predictable solution for the common problem described in both Roseman and Lichty, namely, dealing with unwanted communications from disruptive users.

On the complete record, we find that Roseman and Lichty teach these limitations of claim 189. We note that Patent Owner does not contest that Roseman and Lichty teach these limitations.

> e. *"wherein, for the communications which are received and which present an Internet URL, facilitating handling the Internet URL via the computer system so as to find content specified by the Internet URL and presenting the content at an output device of the second participator computer"*

Petitioner contends that Roseman teaches sending a document from a first participator computer to a second participator computer by using a document icon that the host computer places on a virtual conference table for retrieval by the second participator computer. Pet. 41–42. Petitioner contends that Pike provides a teaching of "basic and familiar Internet concepts, such as hypertext links and URLs." *Id.* at. 36. Petitioner argues that it would have been obvious to combine this teaching with the teachings of Roseman and Vetter, with the predictable result that Roseman's clickable icons include URLs to identify the location of the corresponding document on the host computer. *Id.* at 37. Petitioner argues that a person of ordinary skill would have known that this would be advantageous as it would alleviate a need to communicate the file content itself from the host computer to the participant computer unless requested by the participant. *Id.* at 37–38. As explained in detail above, it would have been obvious to implement Roseman's system to communicate over the Internet. We find that it would have been straightforward and obvious to implement Roseman's icon as a URL, as Pike illustrates that it was well-known to implement pointers as URLs when communicating over the Internet. Ex. 1006, 43.

On this record, we are persuaded that Petitioner's evidence supports a finding that Roseman teaches this limitation of claim 189. We note that

Patent Owner does not contest that Roseman, Vetter, and Pike teach this limitation.

4. Claim 465

Petitioner contends that independent claim 465 recites an apparatus with limitations that are substantially similar to the steps of claim 189. Pet. 53. Petitioner shows in a claim chart where each limitation of claim 465 overlaps with claim 189. *Id.* at 54–55. Petitioner argues that claim 465 would have been obvious for the same reasons given for claim 189. *Id.* at 55–56. Patent Owner does not advance any additional arguments for claim 465. PO Resp. 30–31. We agree with Petitioner's identification of overlap and find that claim 465 is taught by Roseman, Rissanen, Vetter, and Lichty for the reasons given for claim 189, above.

5. Intermediate Claims 202, 208, 214, 220 and Challenged Claims 203, 209, 215, 221

Petitioner challenges dependent claims 203, 209, 215, and 221, which depend indirectly from challenged claim 189. '659 Pet. 6. The challenged dependent claims depend directly from claims 202, 208, 214, and 220, respectively, which are not challenged. Nevertheless, to determine the patentability of claims 203, 209, 215, and 221, we must evaluate unchallenged intermediate claims 202, 208, 214, and 220.

Claims 202, 208, 214, and 220 recite "wherein the determining whether the first user identity is censored includes determining that the first user identity is censored from the sending of," respectively:

"the data presenting the video" (claim 202);

"the data presenting the audio" (claim 208);

"the data presenting the graphic" (claim 214); and

"the data presenting the multimedia" (claim 220).

Petitioner makes essentially the same argument for each of these claims. For example, for claim 202, Petitioner refers to examples of communicating video that it presented for the limitation of claim 189, "determining whether the first user identity is individually censored from sending data in the communications, the data presenting at least one of a pointer, video, audio, a graphic, and multimedia,"[9] and incorporates the arguments it presents for claim 189[d] to show censoring. Pet. 51–52; s*ee also id.* at 57–61 (similar arguments for claims 208, 214, and 220).

Patent Owner argues that "Lichty merely discloses ignoring a user, not specifically excluding video, audio, graphic or multimedia from being presented to a certain identity" and that "Lichty excludes a user, not content or data from being presented." Supp. PO Resp. 9–10. Patent Owner also argues that "Petitioner's assertion that the same reasoning from limitation 189[d] applies to the present limitations is incorrect for at least the reason that 189[d] fails to apply to the level of particularity of claims 202, 208, 214, and 220, and thus Petitioner fails to address each and every limitation of the claims." Supp. PO Resp. 10.

In reply, Petitioner argues that "[t]he Petition cited Lichty for its disclosure of its censoring feature, and relied on the host in Roseman to carry out the other features of the claim, including the transmission of video, audio, content, graphic or multimedia content" and that "under the

[9] Petitioner refers to this limitation as limitation "189[d]."

combination of Roseman and Lichty, when a first user is blocked from sending data to a second user via the censoring features of Lichty, that user is blocked from sending video, audio, graphic or multimedia content, whatever the case may be." Reply 7. In other words, Petitioner argues that, by censoring a user from sending any content, the user effectively is censored from sending individual types of content, including video, audio, graphic, or multimedia, even if there is no determination specific to the type of content. Petitioner does not contend that Roseman and Lichty teach making a determination as to whether a user can send data based on the type of data the user seeks to send. For example, Petitioner does not contend that Roseman and Lichty teach censoring a user from sending video data, but permitting the user to send audio data.

Claim 189 recites "determining whether the first user identity is individually censored from sending data in the communications, the data presenting at least one of a pointer, video, audio, a graphic, and multimedia." On its face, claim 189 does not require a determination that the user is censored from sending a particular type of data. Rather, claim 189 recites determining whether the user identity is censored from sending data. Claims 202, 208, 214, and 220, however, more narrowly recite determining whether the first user identity is censored from sending particular types of data. Claim 202, for example, recites "determining that the first user identity is censored from the sending of the data presenting the video." Claim 202, thus, positively recites a determination of censorship based on data type. Contrary to Petitioner's reading, claim 202 recites more than just a result of a general censorship of all data sent by the user. Claims 208 (audio), 214

(graphic), and 220 (multimedia) similarly recite determination of censorship based on data type.

In Section II.A.1 above, we construe "censor," by itself, to mean "control what is said in a group," and "the first user identity is individually censored from sending data," as recited in claim 189, to refer to control of data sent by the at least one of the user identities, individually. Nevertheless, claims 202, 208, 214, and 220 include additional language reciting determinations based on data type. This is consistent with the description in the specification that "[c]ensorship also can use the tokens for real time control of data (ascii, text, video, audio) from and to users, as well as control over multimedia URLs—quantity, type, and subject." Ex. 1001, 8:17–19.

As explained above, Roseman describes censoring users from sending all communications based on a determination that the user is conducting a filibuster. Ex. 1003, 12:29–45. Petitioner points to no description in Roseman of determining that a user is censored from sending a particular type of data—it is all or nothing. Likewise, Lichty describes an ignore feature for blocking all communications from a disruptive user, regardless of data type—again, all or nothing. Ex. 1007, 269, 510. We find that Roseman and Lichty do not teach determining that a user is censored from sending certain types of data.

In sum, Petitioner has not shown that Roseman, Rissanen, Vetter, Lichty, and Pike teach the limitations of intermediate claims 202, 208, 214, and 220. Accordingly, Petitioner has not shown by a preponderance of the evidence that Roseman, Rissanen, Vetter, Lichty, and Pike render obvious claims 203, 209, 215, and 221.

6. Intermediate Claims 476, 481, 486, 491

Petitioner challenges independent claim 465 and dependent claims 477, 482, 487, and 492, which depend indirectly from claim 465. '659 Pet. 6. The challenged dependent claims depend directly from claims 476, 481, 486, and 491, respectively, which are not challenged. Nevertheless, to determine the patentability of claims 477, 482, 487, and 492, we must evaluate unchallenged intermediate claims 476, 481, 486, and 491.

Claim 476 recites "wherein data presents the video"; claim 481 recites "wherein the data presents the audio"; claim 486 recites "wherein the data presents the graphic"; and claim 491 recites "wherein the data presents the multimedia." For the reasons given in Section II.B.3.d above, we find that Roseman teaches examples of the data presenting video, audio, graphics, and multimedia. Thus, Roseman teaches the additional limitations of claims 476, 481, 486, and 491. We note that Patent Owner does not raise any additional arguments for these claims.

7. Claims 334, 477, 482, 487, 492, 580 ("two client software alternatives")

Claim 334 depends from claim 189 and adds

> wherein the computer system provides access via any of two client software alternatives, wherein both of the client software alternatives allow respective user identities to be recognized and allow at least some of the participator computers to form at least one group in which members can send communications and receive communications.

Claim 580 depends from claim 465 and recites the same limitation. Claims 477, 482, 487, and 492 depend from intermediate claims 476, 481, 486, and 491, respectively, and recite substantially the same limitation.

In the Institution Decision, we determined that the claim language "the computer system provides access via any of two client software alternatives" refers to separate software platforms implementing user interfaces on two different participator computers, with both providing access to the control computer. Dec. 34. This is the reading most consistent with the '657 patent's description. Ex. 1001, 2:25–31 ("Participator software runs on each of the participator computers to program each of the participator computers to operate a user interface. The user interface permits one of the users to send and/or receive a multimedia information message to the controller computer, which arbitrates which of the participator computers receives the multimedia information message."), 4:32–35 ("While platform controlled embodiments are within the scope of the invention, it is particularly advantageous to have a platform independent embodiment, i.e., an embodiment that is byte code compiled."), 5:1–5 ("The Participator Computers 5 are each running and under the control of Participator Software 4, which directs each of the Participator Computers 5 to handle a user Interface permitting one said user to send a multimedia information Message 8 to the Controller Computer 3 . . . .").

Petitioner argues that Roseman describes its local computers as using a Windows operating system, but notes that other environments are within the level of skill in the art. Pet. 48 (citing Ex. 1003, 12:1–5, 12:9–10); '659 Pet. 53. Dr. Lavian testifies that it was well-known to provide software products for multiple computing platforms, such as Windows and Macintosh because it was more commercially attractive and would increase the number of users who could use the software. Ex. 1002 ¶ 119. Petitioner argues that it would have been obvious to provide alternatives for local computer

software that would operate on Windows and Macintosh platforms. Pet. 48; '659 Pet. 53.

Patent Owner argues that "Roseman does not indicate how a second alternative would be able to communicate with the host computer to receive the common image or to interact with it" and that "Roseman's disclosure of the 'Windows Context' is not an affirmative teaching of another client software alternative." PO Resp. 33; Supp. PO Resp. 5–6. Petitioner, however, does not argue that Roseman expressly teaches two client software alternatives. Rather, Petitioner argues that Roseman describes one software alternative, for the Windows platform, and expressly teaches that software for other platforms would have been within the level of skill in the art. Pet. 48; '659 Pet. 53; Reply 20 ("The Petition explained that the claimed two client software alternatives were obvious, among other reasons, because it would have been obvious to adapt the participator software in Roseman to run on multiple computing platforms, such as Windows and Macintosh."); Supp. Reply 3.

Patent Owner argues that Roseman does not "indicate how any of its client software could be modified so as to make [a] second software alternative." PO Resp. 33; Supp. PO Resp. 6. According to Patent Owner, Dr. Lavian admitted in deposition that it is not always possible to make the same software programs for different operating systems. PO Resp. 34 (citing Ex. 2006, 157:6–158:11); Supp. PO Resp. 6–7. Although it might not be possible to adapt every software program to work on every operating system, Roseman itself suggests adapting its software to different

environments beyond Windows. Ex. 1003, 12:1–10. Thus, Patent Owner's argument is not persuasive.[10]

Patent Owner also argues that Windows and Macintosh are not client software, but instead are operating systems. PO Resp. 33; Supp. PO Resp. 6. Petitioner, however, does not argue that Windows and Macintosh are the two software alternatives. Rather, Petitioner argues that Roseman describes a client software alternative that would work with the Windows operating system and suggests that another client software alternative working with the Macintosh operating system would have been within the level of skill in the art. Pet. 48; '659 Pet. 53; Reply 20 ("But the Petitioner did not point to Windows and Macintosh *themselves* as the two client software alternatives, but rather, to versions of the participator software in Roseman adapted to run on those platforms."); Supp. Reply 3. Thus, Patent Owner's argument is not persuasive.

Patent Owner further contends that a skilled artisan would not have used two separate software alternatives to implement Roseman's client software with Windows and Macintosh platforms because the skilled artisan would have used Java instead. PO Resp. 34–35; Supp. PO Resp. 7–8. According to Patent Owner, "Java and byte-code are cross-platform solutions that can run on both Windows and Macintosh." PO Resp. 34; Supp. PO Resp. 7. Dr. Carbonell testifies that

[10] Patent Owner also argues that a Telnet-based solution for Roseman would not work without graphical user interface (GUI) support. PO Resp. 33; Supp. PO Resp. 6. This is inapposite, as Petitioner does not argue that Roseman would have been modified to accommodate a Telnet-based solution.

> one of ordinary skill in the art who was motivated to provide software that could work across different platforms and operating systems would have been motivated to utilize a single platform independent software implementation, such as a Java implementation and would not have been motivated to provide additional alternatives to that cross-platform software.

Ex. 2005 ¶ 71.

Petitioner argues that the claim language does not exclude platform-specific embodiments and that the '657 patent specifically describes such embodiments as within the scope of the invention. Reply 21 (citing Ex. 1001, 4:32–35 ("While platform controlled embodiments are within the scope of the invention, it is particularly advantageous to have a platform independent embodiment, i.e., an embodiment that is byte code compiled."). We agree with Petitioner. As noted above, "just because better alternatives exist in the prior art does not mean that an inferior combination is inapt for obviousness purposes." *Mouttet*, 686 F.3d at 1334. Thus, even if Java would have been advantageous in some circumstances, we still find that platform-specific client software embodiments would have been an apt extension of Roseman's system.

In light of Roseman's description of client software for the Windows environment and its express teaching that the software for other environments is within the level of skill, Ex. 1003, 12:1–10, we are persuaded that Roseman at least suggests client software for other platforms that were common at the time, such as Macintosh. We credit Dr. Lavian's testimony that providing software for use with both Windows and Macintosh would have made Roseman's system more commercially attractive by increasing the number of users who could use the software. Ex. 1002 ¶ 119. *See also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) ("When a

work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one."). Thus, we find that Roseman suggests "wherein the computer system provides access via any of two client software alternatives," as recited in claim 334 and similarly recited in claims 477, 482, 487, and 492.

Petitioner contends that Roseman's software running on a local computer, which can be a software implementation for a Windows platform and a Macintosh platform, allows user identities to be recognized by the host computer. Pet. 50–51; '659 Pet. 55–56. Petitioner argues that a group of local computers is formed when a user of a local computer in Roseman drags other participants into a child-room. Pet. 51; '659 Pet. 56. In another example, Petitioner argues that Roseman's description of creating a virtual conference room, involving identifying the participants of the conference room and requiring invited users to have appropriate keys, teaches permitting at least a first user identity and a second user identity to form a group. Pet. 32; '659 Pet. 34.

We agree with Petitioner. When Roseman's users, via software running on their respective local computers, access conference rooms using keys, Roseman's host computer recognizes the users and allows them to send and receive communications from each other. Ex. 1003, 3:22–56. Thus, we find that Roseman teaches "wherein both of the client software alternatives allow respective user identities to be recognized and allow at least some of the participator computers to form at least one group in which members can send communications and receive communications," as recited in claim 334, and similarly recited in claims 477, 482, 487, 492, and 580.

8. Remaining Challenged Dependent Claims

Claim 342 depends from claim 189 and adds "wherein at least one of the communications includes data presenting a human communication of sound." Claim 584 depends from claim 465 and adds a similar limitation. As Petitioner observes (Pet. 52), Roseman describes communicating in virtual conference rooms via audio connections. Ex. 1003, 11:11–16. Thus, Roseman teaches the additional limitation of claims 342 and 584.

Claim 348 depends from claim 189 and adds "providing the first user identity with access to a member-associated image corresponding to the second user identity." Claim 592 depends from claim 465 and adds a similar limitation. Petitioner points to Roseman's description of including photographs of each participant in the common screen presented to the users. Pet. 52–53 (citing Ex. 1003, 7:35–39, Fig. 9). This is shown in Figure 9 of Roseman, reproduced above. Based on this evidence, we find that Roseman teaches the subject matter of claims 348 and 592.

9. Conclusion of Obviousness

As explained above, Roseman, Rissanen, Vetter, Lichty, and Pike teach each limitation of claims 189, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592. Petitioner has introduced persuasive evidence that a skilled artisan would have had reasons to combine the teachings of Roseman, Rissanen, Vetter, Lichty, and Pike. Patent Owner does not argue or introduce evidence of objective indicia of nonobviousness. In sum, upon consideration of all the evidence, we conclude that Petitioner has proved by a preponderance of the evidence that claims 189, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592 would have been obvious over Roseman,

Rissanen, Vetter, Lichty, and Pike. Petitioner has not proved, by a preponderance of the evidence, that claims 203, 209, 215, and 221 are unpatentable.

III. PATENT OWNER'S MOTION TO EXCLUDE

Patent Owner filed a paper styled "Motion to Exclude Evidence," seeking to exclude certain portions of the 2nd Lavian Declaration that it argues exceeds the proper scope of a reply. Paper 39, 1. Specifically, Patent Owner moves to exclude portions of paragraphs 54, 74, and 75 of the 2nd Lavian Declaration. *Id.* at 2–5.

Petitioner opposes this motion on the ground that it is not directed to the admissibility of evidence and, therefore, is procedurally improper. Paper 42, 2. Patent Owner contends that arguments that exceed the scope of a reply are irrelevant, prejudicial, confusing, or misleading under Federal Rules of Evidence 401, 402, and 403. Paper 44, 1–2. As Petitioner points out, however, the Board repeatedly has denied, as improper, motions to exclude that merely argue that evidence is outside the proper scope of a reply. Paper 42, 2–3. Despite its invocation of Rules 401, 402, and 403, we agree that Patent Owner's Motion to Exclude is nothing more than an argument that Petitioner's Reply exceeds its proper scope. Accordingly, we deny Patent Owner's Motion.

Nevertheless, we have considered Patent Owner's argument with respect to those portions of Petitioner's Reply that are relied upon in this decision, and determine they do not belatedly raise new issues or present evidence that should have been presented in the Petition. In any case, we do not rely on paragraphs 54, 74, and 75 of the 2nd Lavian Declaration.

IV. CONCLUSION

Petitioner has proved by a preponderance of the evidence that claims 189, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592 are unpatentable, but has not proved that claims 203, 209, 215, and 221 are unpatentable.

V. ORDER

For the reasons given, it is:

ORDERED, based on a preponderance of the evidence, that claims 189, 334, 342, 348, 465, 477, 482, 487, 492, 580, 584, and 592 are unpatentable; and

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

PETITIONER:

Heidi Keefe
hkeefe@cooley.com

Phillip Morton
pmorton@cooley.com

Andrew Mace
amace@cooley.com

PATENT OWNER:

Peter Lambrianakos
plambrianakos@brownrudnick.com

Vincent Rubino
vrubino@brownrudnick.com