

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

ROVI GUIDES, INC.,
Patent Owner.

Case IPR2017-01143
Patent 8,046,801 B2

Before KEVIN F. TURNER, MICHAEL R. ZECHER, and
JESSICA C. KAISER, *Administrative Patent Judges*.

KAISER, *Administrative Patent Judge*.

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

I. INTRODUCTION

Petitioner, Comcast Cable Communications, LLC (“Comcast”), filed a Petition for *inter partes* review of claims 1–54 of U.S. Patent No. 8,046,801 B2 (Ex. 1201, “the ’801 patent”). Paper 2 (“Pet.”). Patent Owner, Rovi Guides, Inc. (“Rovi”), filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). Taking into account the arguments presented in Rovi’s Preliminary Response, we determined that the information presented in the Petition established that there was a reasonable likelihood that Comcast would prevail in challenging claims 1–54 of the ’801 patent as unpatentable under 35 U.S.C. § 103(a). Pursuant to § 314, we instituted this *inter partes* review on October 18, 2017, as to all of the challenged claims and the only ground presented by Comcast in its Petition. Paper 8 (“Dec. on Inst.”).

During the course of trial, Rovi filed a Patent Owner Response (Paper 14, “PO Resp.”), and Comcast filed a Reply to the Patent Owner Response (Paper 25, “Pet. Reply”). A consolidated oral hearing with related Cases IPR2017-00950, IPR2017-00951, IPR2017-00952, IPR2017-01048, IPR2017-01049, IPR2017-01050, IPR2017-01065, and IPR2017-01066 was held on June 19, 2018, and a transcript of the hearing is included in the record. Paper 34 (“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 1–54 of the ’801 patent. For the reasons discussed below, we hold that Comcast has demonstrated by a preponderance of the evidence that these claims are unpatentable under § 103(a).

A. Related Matters

The '801 patent is involved in the following district court cases: (1) *Rovi Guides, Inc. v. Comcast Corp.*, No. 2:16-cv-00322 (E.D. Tex.), which has been transferred to the U.S. District Court for the Southern District of New York and is now pending as *Rovi Guides, Inc. v. Comcast Corp.*, No. 1:16-cv-09826 (S.D.N.Y.); and (2) *Comcast Corp. v. Rovi Corp.*, No. 1:16-cv-03852 (S.D.N.Y.). Pet. 1–2; Paper 3, 2. The '801 patent has also been asserted against Comcast in a proceeding before the U.S. International Trade Commission (“ITC”) styled *In re Certain Digital Video Receivers and Hardware and Software Components Thereof*, No. 337-TA-1001 (Int’l Trade Comm’n). Pet. 2; Paper 3, 2.

In addition to this Petition, Comcast filed two other petitions challenging the patentability of claims 1–54 of the '801 patent (Cases IPR2017-001065 and IPR2017-01066), as well as petitions challenging related patents. Pet. 3; Paper 3, 2.

B. The '801 Patent

The '801 patent, titled “Interactive Television Program Guide with Remote Access,” issued October 25, 2011, from U.S. Patent Application No. 10/927,814, filed on August 26, 2004. Ex. 1201, at [54], [45], [21], [22]. The '801 patent is a continuation of U.S. Patent Application No. 09/354,344, filed on July 16, 1999. *Id.* at [63]. The '801 patent also claims the benefit of U.S. Provisional Application No. 60/097,527, filed on August 21, 1998, and U.S. Provisional Application No. 60/093,292, filed on July 17, 1998. *Id.* at [60].

The '801 patent generally relates to interactive television program guide video systems and, in particular, to such systems that provide remote access to program guide functionality. Ex. 1201, 1:16–19. The '801 patent discloses that conventional interactive television program guide systems typically are implemented on set-top boxes located in the home of a user and, as a result, do not permit the user to perform program guide functions without the user being physically located in the same room as these systems. *Id.* at 1:34–42. Stated differently, conventional interactive television program guide systems require the user to be present in the home to access important program guide features, such as program reminders, parental controls, and program recording. *Id.* at 2:16–19. The '801 patent purportedly addresses this and other problems by providing an interactive television program guide system that allows a user to access certain features of the program guide remotely and establish settings for those features. *Id.* at 2:20–25.

Figure 1 of the '801 patent, reproduced below, illustrates a schematic block diagram of the system described in the patent. *Id.* at 5:35–36, 7:15–16.

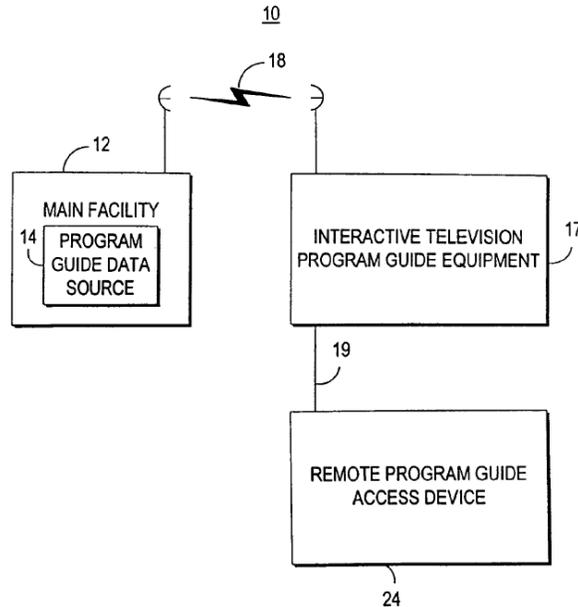


FIG. 1

As shown in Figure 1, reproduced above, system 10 includes main facility 12 that provides interactive television program guide data from program guide data source 14 to interactive television program guide equipment 17 via communications link 18. *Id.* at 7:16–19. Interactive television program guide equipment 17 is connected to at least one remote program guide access device 24 via remote access link 19. *Id.* at 7:33–35.

Figure 2a of the '801 patent, reproduced below, illustrates one arrangement involving interactive television program guide equipment 17 and remote program guide access device 24. *Id.* at 5:37–40, 7:40–43.

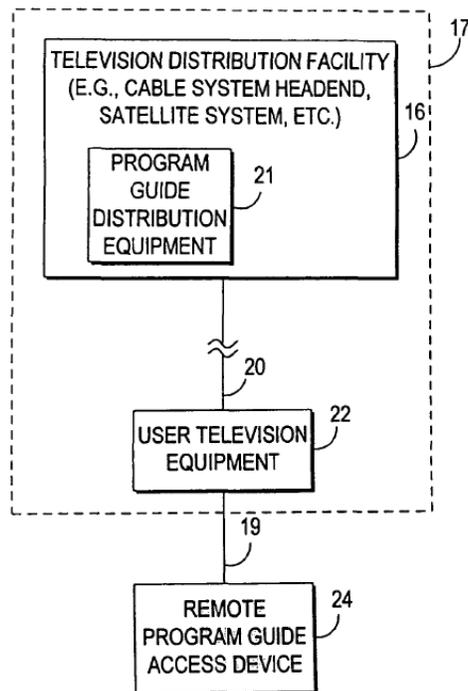


FIG. 2a

As shown in Figure 2a, reproduced above, interactive television program guide equipment 17 includes program guide distribution equipment 21 located at television distribution facility 16, which distributes program guide data to user television equipment 22 via communications path 20. *Id.* at 7:44–53. Remote program guide access device 24 receives the program guide data, as well as any additional data necessary to access various functions of the interactive program guide, from user television equipment 22 via remote access link 19. *Id.* at 8:15–26.

In at least one embodiment, the '801 patent discloses that a remote access interactive television program guide implemented on remote program guide access device 24 communicates with a local interactive television program guide implemented on interactive television program guide equipment 17. *Id.* at 15:9–15. In one example, the remote access and local

interactive television program guides may be two different guides that communicate with each other. *Id.* at 15:20–23; *see also id.* at 25:35–59 (disclosing steps involved with using the remote access interactive television program guide to provide program listing information to a user). In another example, the remote access and local interactive television program guides may be the same guide, but compiled to run on two different platforms. *Id.* at 15:15–18.

The '801 patent discloses transferring program guide information and settings between remote program guide access device 24 and interactive television program guide equipment 17 using any suitable application layer protocol. Ex. 1201, 15:60–64. For example, if remote access link 19 is an Internet link, program guide functionality may be accessed using Hypertext Transfer Protocol. *Id.* at 15:64–66. Remote program guide access device 24 and interactive television program guide equipment 17 also may transfer program guide information as files using either File Transfer Protocol or Trivial File Transfer Protocol running over a Transmission Control Protocol/Internet Protocol stack. *Id.* at 15:66–16:4. The '801 patent makes clear that “[a]ny suitable file transfer protocol based on any suitable protocol stack may be used.” *Id.* at 16:4–5.

C. Illustrative Claim

Claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51 are independent. Claims 1, 5, 19, 23, 37, and 41 recite methods, and claims 10, 15, 28, 33, 46, and 51 recite systems. Claims 2–4 directly depend from independent claim 1; claims 6–9 directly depend from independent claim 5; claims 11–14 directly depend from independent claim 10; claims 16–18 directly depend

from independent claim 15; claims 20–22 directly depend from independent claim 19; claims 24–27 directly depend from independent claim 23; claims 29–32 depend directly from independent claim 28; claims 34–36 depend directly from independent claim 33; claims 38–40 depend directly from independent claim 37; claims 42–45 depend directly from independent claim 41; claims 47–50 depend directly from independent claim 46; and claims 52–54 depend directly from independent claim 51.

Independent claim 1 is illustrative of the subject matter of the challenged claims and is reproduced below:

1. A method of enabling a user to perform recordings, the method comprising:

generating, with a remote guide accessible by a user of a remote device, a display comprising a plurality of program listings for display on the remote device, wherein the display is generated by the remote guide based on program guide information received from a local guide implemented on user equipment via the Internet, wherein the user equipment is remote to the remote device, wherein the user equipment is located at a user site, and wherein the local guide generates a display of one or more program listings for display on a display device at the user site;

receiving, with the remote guide, a user selection of a program listing from the plurality of program listings, wherein the user selection identifies a program corresponding to the selected program listing for recording by the local guide;

transmitting, with the remote guide, a communication to the local guide identifying the program corresponding to the selected program listing via the Internet;

receiving the communication with the local guide; and

responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment.

Ex. 1201, 40:6–30.

D. Prior Art Relied Upon

Comcast relies upon the following prior art references:

Inventor¹	Patent or Publication No.	Relevant Dates	Exhibit No.
Killian	U.S. Patent No. 6,163,316	issued Dec. 19, 2000, filed Oct. 3, 1997	1208
Blake ²	PCT Int'l Pub. No. WO 98/10589	published Mar. 12, 1998, filed Sept. 2, 1997	1222

E. Instituted Ground of Unpatentability

We instituted a trial based on the following asserted ground of unpatentability (“ground”): claims 1–54 of the ’801 patent are unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Blake and Killian. Dec. on Inst. 29.

II. DISCUSSION

A. Claim Construction

In an *inter partes* review proceeding, claim terms of an unexpired patent are given their broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b).

¹ For clarity and ease of reference, we only list the first named inventor.

² Blake incorporates by reference U.S. Patent No. 4,706,121 (Ex. 1223, “Young”).

Under the broadest reasonable interpretation standard, and absent any special definitions, claim terms are generally given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art, in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In the Decision on Institution, we determined that the only claim terms requiring construction are “guide” and “electronic program guide” and only to the extent necessary to resolve whether the grounds asserted by Comcast properly accounted for both a “guide” and “electronic program guide.” Dec. on Inst. 9; *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (explaining that only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy). Upon reviewing the parties’ preliminary arguments and evidence, we determined that the broadest reasonable interpretation of the claim terms “guide” and “electronic program guide” in the context of the challenged claims is “software operative at least in part to generate a display of television program listings,” and we agreed with Comcast that the terms “guide” and “electronic program guide” are not limited to interactive guides. *Id.* at 10–11. We further clarified that the claim terms “local guide” and “remote guide” are separately identifiable elements, and they are not construed properly as reading on the same guide. *Id.* at 11.

We have reviewed the parties’ arguments and evidence as to the proper construction of “guide” as recited in the challenged claims, and we are not persuaded to change our preliminary construction to require that such guides be construed as “interactive” guides, as Rovi contends. We note,

however, that at the oral hearing, Comcast contended that this distinction does not make a difference because it has shown interactive guides are taught by the references. Tr. 8:25–9:13. Thus, we discuss below the construction of “guide” and “electronic program guide,” but we also consider, in the context of Comcast’s challenges, whether Comcast has adequately supported its challenges if the recited guides were limited to interactive guides.

In its Patent Owner Response, Rovi contends that “the proper construction for ‘guide’ should be an interactive program guide as claimed in related patents, Nos. 8,006,263 (‘263 patent’) and 8,578,413 (‘413 patent’).” PO Resp. 8 (emphasis omitted). Rovi does not appear to otherwise dispute our preliminary construction in the Decision on Institution.³

As to interactivity, Rovi contends such a construction is consistent with the intrinsic evidence, including the language of claim 1 (“requiring that the guide be capable of receiving a user selection, transmitting a communication, and scheduling a program for recording”), the ’801 patent’s title (“Interactive Television Program Guide with Remote Access”), and the

³ For the first time at the oral hearing, Rovi argued that “remote guide” requires “dedicated code at the remote device.” *See, e.g.*, Tr. 58:3–7, 60:19–61:14, 66:14–21. We agree with Comcast (*id.* at 96:3–10) that this is a new argument that was not presented and developed in Rovi’s briefs and, therefore, we do not consider it. *See* Paper 9, 3 (cautioning Rovi that “any arguments for patentability not raised in the response will be deemed waived”).

specification's references to "interactive" guides that "allow navigation through program listings and cause display of program listings." *Id.* at 8–9.

As we discussed in our Decision on Institution, we are not persuaded that reading "interactive" into the claims is consistent with the intrinsic evidence. First and foremost, we start with the language of the claims. *See In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) ("the name of the game is the claim"). The term "interactive" does not appear in the claims of the '801 patent. Instead, those claims use the terms "remote guide," "local guide," and "electronic program guide." While we agree with Rovi that certain interactive features are recited in the claims, we need not construe "remote guide," "local guide," and "electronic program guide" to take those recitations into account because they are already recited in the claims themselves. *See Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1237 (Fed. Cir. 2016) ("Construing a claim term to include features of that term already recited in the claims would make those expressly recited features redundant."). In addition, we determine that recitations of some interactive features in the claims do not counsel in favor of reading in other unrecited aspects of interactivity.

Rovi also relies on the '801 patent specification. PO Resp. 8–9. Specifically, Rovi points to the title ("Interactive Television Program Guide with Remote Access") and descriptions of "interactive" guides in the specification. *Id.* at 9 (citing Ex. 1201, at [57], 1:16–19, 1:28–30, 2:20–22, 2:26–29, 2:57–66, 3:16–22, 4:1–5, 4:8–10, 6:1–4, 7:19–22, 7:40–41, 9:49–52, 15:11–15, 16:62–17:2, 23:13–15, Figs. 2a–2d, 12–23). Rovi further contends that in reaching our preliminary construction, we considered only the specification's description of "on-line guides" in the Background of the

Invention section without fully addressing “the Fig[ure] 6c disclosure of an ‘on-line program guide’ with the interactive features of the invention.” *Id.* at 9–10 (citing Ex. 1201, 14:48–66); *see also id.* at 11 (citing Ex. 2206 ¶¶ 23–29).

We agree that the specification describes “interactive” guides. Rovi, however, does not explain why any of these descriptions is limiting (including the description of Figure 6c which is referred to as “another illustrative arrangement,” Ex. 1201, 14:48), particularly in light of the claim drafter’s choice to omit the term “interactive” from the ’801 patent’s claims. We agree with Comcast that, “[b]y seeking to construe the plain term ‘guide’ as an ‘interactive television program guide,’ Patent Owner improperly seeks to import limitations from the specification into the claims.” Pet. Reply 4 (citing Dec. on Inst. 10); *see Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (“Though understanding the claim language may be aided by the explanations contained in the written description, it is important not to import into a claim limitations that are not a part of the claim.”).

Rovi also supports its proposed “interactive” limitation with (1) agreed constructions in the International Trade Commission (“ITC”) and the ITC’s order (PO Resp. 9 (citing Ex. 2201, 187–188⁴), 11–13), and (2) filings in related cases before the Board involving the ’263 patent (*id.* at 10–12). Regarding the parties’ arguments and the Board’s findings in related cases (e.g., Case IPR2017-00950), Rovi acknowledges the claims in those

⁴ We refer to the page numbers added by Comcast in the lower right corner of Exhibit 2101.

cases recite an “interactive television program guide.” PO Resp. 11. In contrast, the claims here omit the term “interactive.”

Regarding the ITC proceedings, we observe that the agreed constructions (“local guide” and “remote guide”) to which Rovi cites are for the ’263 patent, not the ’801 patent. Ex. 2201, 186. We further observe that the ’263 patent’s claims use “the local guide” to refer back to “a local interactive television program guide” and do not appear to use the term “remote guide.” See Ex. 2208, claim 14. In its Patent Owner Response, Rovi does not specifically address how agreed constructions as to the ’263 patent relate to the constructions of those terms in the ’801 patent. See PO Resp. 9. Patent Owner also points to “the ITC’s findings on related terms.” *Id.* (citing Ex. 2201, 292). From the ITC’s discussion of the term “recording by the local guide,” however, it does not appear that the ITC was directly presented with the issue of whether the “local guide,” as recited in the ’801 patent claims, must be interactive. See Ex. 2201, 289–292 (noting that the parties’ arguments were commingled with other disputed phrases and focused on proposed causal and geographic limitations).

We emphasize that the issue here is not whether the “guide” and “electronic program guide” include any interactive features; in the Decision on Institution, we agreed with Rovi that the challenged claims recite certain interactive features (Dec. on Inst. 10). Instead, the issue is whether we should read “interactive” into the construction of “guide” and “electronic program guide,” such that those terms include additional *unrecited* interactive functionality. For the reasons discussed above, we conclude that

we should not, and thus, we do not read any requirements for interactivity into those terms beyond those recited in the claims.

Other than its arguments regarding whether the claimed “guide[s]” must be interactive, Rovi agrees with the Board’s preliminary determination that the claims require two separate guides. PO Resp. 14–15. Rovi also acknowledges that stating where the specific guide resides is unnecessary in construing these terms because such “additions merely restate the language of the broader claim limitation.” *Id.* at 15. We agree. *See Apple, Inc.*, 842 F.3d at 1237 (“The Board was correct to not include in its construction of ‘menu’ features of menus that are expressly recited in the claims. . . . Construing a claim term to include features of that term already recited in the claims would make those expressly recited features redundant.”).⁵

Beyond our discussion of interactivity above, neither party directs us to, nor can we find, a disclosure in the specification that specifically identifies what element or elements constitute a “guide.” Given the lack of disclosure in this regard, we decline to limit the “guide” to a single software application.

We further clarify that the plain language of independent claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51 indicates that the claim terms “local guide” and “remote guide” are separately identifiable elements. *See Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed.

⁵ During oral argument, in response to a question regarding the ITC’s construction of the “local guide” being on user television equipment and its construction that the “remote guide” uses a remote access link, counsel for Rovi stated that “I don’t think where [the guides are] implemented is meaningful because that’s recited in the claim separately.” Tr. 66:22–67:24.

Cir. 2010) (“Where a claim lists elements separately, ‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention.” (alteration in original) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004))). Our determination in this regard is supported by the specification, which includes various embodiments that treat these claim terms as separately identifiable elements capable of communicating with each other. *See, e.g.*, Ex. 1201, 15:20–23 (“In still another suitable approach, the [local guide and remote guide] may be different guides that communicate in a manner or manners discussed . . . herein.”), 23:4–7 (“The remote [] guide may . . . send audio, graphical, and text messages to the local [] guide for playing or displaying by user television equipment 22.”). The specification also explains that the local and remote guides may be the same guide, in which case they are separately identifiable elements in that each guide is compiled to run on a different platform. *See id.* at 15:15–18 (“The remote access and local guide may, for example, be the same guide but compiled to run on two different platforms and to communicate in a manner or manners discussed herein.”).

Turning to the extrinsic evidence, in Dr. Tjaden’s Declaration accompanying the Petition, he testifies that “the local guide may be implemented at least in part on a server or other device outside the user’s home.” Ex. 1202 ¶ 36. In Dr. Tjaden’s Declaration accompanying the Reply, he elaborates further on his initial position by testifying that “a [person of ordinary skill in the art] looking at the ’801 Patent would have understood that many different arrangements of the software and hardware components comprising a guide are possible and acceptable in [the] prior art used to show obviousness.” Ex. 1152 ¶ 15. To support this testimony, he

directs us to the different arrangements of software and hardware in the '801 patent. *Id.* (citing Ex. 1101, 7:16–19, 7:33–35, 7:43–47, 9:36–38, 10:41–48).

Comcast also directs us to Dr. Shamos's Declaration in the ITC proceeding as further evidence as to what element or elements constitute a "guide." *See, e.g.*, Pet. Reply 14 (citing Ex. 1254). Although we recognize that the broadest reasonable interpretation standard governs in this proceeding, whereas the district court claim construction standard governs in an ITC proceeding, Dr. Shamos's testimony in the ITC proceeding is relevant here because it sheds some light on what element or elements he believes constitutes a "guide." In the ITC proceeding, Dr. Shamos testifies that the local guide could be an "extensive collection of hardware and software." Ex. 1254 ¶ 169. He also testifies "that the 'local guide' [should not be construed as] a single software application that must reside on a device in the user's home," and "[n]othing in the claims exclude a 'recording application' from being part of the local guide." *Id.* ¶ 371. Dr. Shamos's testimony in the ITC proceeding is consistent with Dr. Tjaden's testimony in this proceeding because, like Dr. Tjaden, Dr. Shamos does not limit a "guide" to a single software application, but rather contemplates that the "guide" may constitute different arrangements of software and hardware.

We note that the aforementioned testimony from Dr. Tjaden and Dr. Shamos suggests that the "guide" may include both software and hardware. We do not find support in the intrinsic record that the "guide" may include hardware. Rather, the '801 patent separately refers to the guide and the hardware on which it is implemented. *See, e.g.*, Ex. 1201, 1:34–35 ("Interactive television program guides are typically implemented on set-top

boxes . . .”). The aforementioned testimony, however, is consistent with our conclusion that the “guide” may constitute more than just a single software application.

In summary, upon weighing all the evidence bearing on the construction of the claim terms “guide” and “electronic program guide,” we maintain that the broadest reasonable interpretation of these claim terms is “software operative at least in part to generate a display of television program listings,”⁶ and we do not read any requirements for interactivity into those terms beyond those recited in the claims. We also maintain that the claim terms “local guide” and “remote guide” are separately identifiable elements, and they are not construed properly as reading on the same guide.

B. Asserted Obviousness over Blake and Killian

Comcast contends that claims 1–54 of the ’801 patent are unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Blake

⁶ In the Decision on Institution, we did not include “control” in our preliminary construction. Comcast also omitted that term from its proposed construction in this case. Pet. 16. We observe, however, that “control” appears in the construction of related terms in Cases IPR2017-00950, IPR2017-00951, and IPR2017-00952 adopted by the Board. *E.g.*, Case IPR2017-00950, Paper 42, at 20 (PTAB Sept. 19, 2018). The challenged patent at issue in those cases (i.e., the ’263 patent) issued from a continuation of the application that issued as the ’801 patent (in other words, they share a common specification). Ex. 1201, at [21]; Ex. 2108, at [63]. The parties addressed the recited guides being “control software” extensively at the oral hearing. *See, e.g.*, Tr. 18:4–11, 20:20–21:4, 27:3–9, 30:24–25, 31:24–33:14, 81:23–82:11, 82:23–83:6. Because neither party addresses the omission of “control” in this proceeding, we find it unnecessary to add it to our construction, but note that doing so would not affect our analysis of the unpatentability ground discussed below.

and Killian. Pet. 21–51. Comcast explains how this proffered combination teaches or suggests the subject matter of each challenged claim, and provides reasoning as to why one of ordinary skill in the art would have been prompted to modify or combine the references’ respective teachings. *Id.* Comcast also relies upon the Declaration of Dr. Tjaden to support its positions. Ex. 1202 ¶¶ 95–183. In its Patent Owner Response, Rovi presents a number of arguments as to why the combined teachings of Blake and Killian do not render the limitations of independent claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51 obvious. PO Resp. 21–40. Rovi relies upon the Declaration of Dr. Shamos to support its positions. Ex. 2206 ¶¶ 152–182.

We begin our analysis with the principles of law that generally apply to a ground based on obviousness, followed by an assessment of the level of skill in the art, proceeded by brief overviews of Blake and Killian, and then we address the parties’ contentions with respect to the claims at issue in this asserted ground.

1. Principles of Law

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in

the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We analyze the asserted ground based on obviousness with the principles identified above in mind.

2. *Level of Skill in the Art*

There is evidence in the record before us that enables us to determine the knowledge level of a person of ordinary skill in the art. Relying on the testimony of its declarant, Dr. Tjaden, Comcast asserts that a person of ordinary skill in the art as of July 17, 1998, which is the earliest priority date on the face of the '801 patent, would be an individual who possesses the following:

a bachelor's degree in computer science, electrical engineering, computer engineering, or a similar discipline, and two years of experience with interactive program guides, set-top boxes, mobile computer devices, and techniques for delivering content or program guides over communication networks, such as a cable system, a local-area network, and the Internet.

Pet. 15 (citing Ex. 1202 ¶¶ 27–29). Alternatively, once again relying on the testimony of Dr. Tjaden, Comcast asserts that a person of ordinary skill in the art “could have had equivalent experience in industry or research, such as designing, developing, evaluating, testing, or implementing these technologies.” *Id.* (citing Ex. 1202 ¶¶ 27–29). Conversely, Rovi's declarant, Dr. Shamos, does not offer an assessment of the level of skill in the art as of July 1998, nor does he explicitly state his intent to adopt Dr. Tjaden's assessment. *See generally* Ex. 2206. Because Dr Shamos's testimony does not address this matter, we adopt Dr. Tjaden's assessment

because it is consistent with the '801 patent and the asserted prior art, and apply it to our obviousness evaluation below.

3. Overview of Blake

Blake generally relates to a television schedule system with enhanced recording capability. Ex. 1222, 1:17–19. Blake specifically describes the enhanced recording capability with reference to Figures 12 and 13. *Id.* at 16:11–18:29.

Figure 12 of Blake is reproduced below:

	11:00 AM	11:30 AM	12:00 PM
2	JUDGE (PART 1)	JUDGE (PART 2)	AT NOON
4	GOLDEN GIRLS	NEWS	INSIDE EDITION
5	YOUNG & RESTLESS		NEWS
7	PERFECT STRA	LOVING	ALL MY CHILD
9	SESAME STREET		
13	ALL MY CHILDREN		NEWS
44	EVERYDAY		MOVIE
A&E	LORNE GREEN'S WORLD OF S		FUGITIVE
CNN	NEWS		NEWS
DIS	WALT DISNEY PRESENTS		LUNCH BOX
LIF	JANE WALLACE		FRUGAL GOURM
TNT	MOVIE		
CH 2	KNTV-FOX	CBL 2	11:25A TUE APR 3

FIG. 12.

Figure 12 of Blake illustrates an example of a television schedule guide that provides television schedule information in a grid-like display on a television screen. Ex. 1222, 16:12–14. Through a user interface, a user may scroll through the television schedule information and may tune to a program by highlighting and selecting a program displayed in the guide. *Id.* at 16:17–19. Also, the user may select one or more programs for automatic, unattended recording. *Id.* at 16:17–19, 16:22–25. Peripheral devices—which may be televisions, video tape recorders (“VCRs”), or set-top boxes—store time and channel information entries for programs to be recorded. *Id.*

at 4:28–30, 16:26–28.

Blake incorporates by reference the entirety of Young. Ex. 1222, 2:3–5. Blake presents Young as background information and describes it in similar terms to that of Figure 12—namely, Blake states that Young discloses a system that provides television schedule information on a user’s television screen, and allows for user selection of programs and the automatic, unattended recording of programs that are listed in the television schedule information. *Id.* at 1:23–24, 1:27–30.

Figure 13 of Blake is reproduced below:

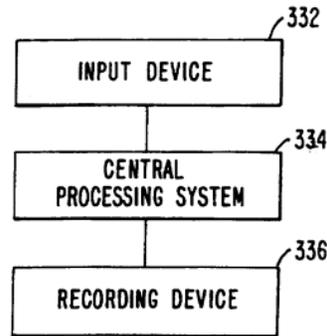


FIG. 13.

Figure 13 of Blake illustrates an arrangement for scheduling recordings from a remote location. Ex. 1222, 4:5–6. According to Blake, the user’s ability to schedule recordings from a remote location enhances the recording capability of the schedule guide. *Id.* at 17:1–2. In Figure 13, a user who is away from home employs input device 332 to access and communicably connect to central processing system 334. *Id.* at 17:3–5. Input device 332 may be any device capable of transmitting data from a remote location, including a personal or laptop computer or cellular telephone. *Id.* at 17:5–8. Recording device 336 may be a VCR or any device with video and/or audio

recording capabilities. *Id.* at 17:19–21.

Input device 332 transmits user input in one of several forms, including: a code; channel, date, time, and length information; the title; or theme data. Ex. 1222, Claims 4–7, 17:8–10, 17:15–16, 17:25–26, 18:1–2. Where the input information is theme data, the user first chooses to select a program to record by themes. Ex. 1222, 18:5–7. For example, if the user wishes to record the Chicago Bulls v. Los Angeles Lakers game, the user selects sports when presented with a list of theme selections, and further selects basketball. *Id.* at 18:5–8. The user is presented with a list of basketball games that are either being played or are scheduled to be played, and then selects the Bulls v. Lakers game. *Id.* at 18:8–10. Alternatively, the user may enter “Bulls,” and processing system 334 will present a list of Bulls games, and the user may select one or more of the games to record. *Id.* at 18:10–12. The input data are received by processing system 334, which stores the information and activates recording device 336 to record the program at the appropriate time. *Id.* at claim 1, 17:10–19, 17:29–30, 18:12–16.

4. Overview of Killian

Killian generally relates to an electronic programming guide that operates on a computing platform using information from the Internet for display on a television. Ex. 1208, 2:1–3, 3:18–23. Killian uses viewer profiles to generate a preferred programming schedule that allows viewers to more intelligently select programs that may be desirable for viewing or recording. *Id.* at 10:61–66. Each viewer associated with a television receiver may generate a viewer profile for storage in a database, and the

database may include an arrangement of information at one or more locations that are integral to or separate from the television receiver. *Id.* at 9:10–25. The preferred schedule that is generated according to the user profile indicates the desirability of a particular program relative to other programs. *Id.* at 2:11–12.

5. Claim 1

In its Petition, Comcast contends that Blake’s television schedule system accounts for each of the limitations recited in independent claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51. Pet. 21–28; *see also id.* at 30–48. For instance, Comcast relies on Blake’s illustration of a television schedule guide in Figure 12 as an example of a display generated by a “local guide.” *Id.* at 24, 31–32. Comcast also relies on Blake’s input device 332 as a “remote device” (*id.* at 25, 33), and the ability of the user in Blake to select a program to record according to themes, which allows for navigating program listings and making program selections, as establishing a “remote guide” (*id.* at 25–26, 33–34).

To the extent Blake does not disclose certain limitations, Comcast presents alternative arguments. *E.g.*, Pet. 28–29, 34–35 (“remote guide”); *id.* at 37–39, 42–43 (“program guide information”); *id.* at 39–40, 46–47 (“via the Internet”); *id.* at 37, 43–46 (“local guide”). Here, Comcast argues that it would have been obvious to one of ordinary skill in the art to implement Killian’s user profile data in Blake’s remote user interface to better track a user’s preferences and generate more effective user interfaces that better identify desired content. *Id.* at 38–39.

For added clarity, we highlight certain arguments presented by

Comcast for each limitation recited in independent claim 1. We note that there is no dispute between the parties as to whether the limitations of independent claims 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51 are essentially the same as the limitations of independent claim 1. *Compare* Pet. 9–12, 51–70, *with* PO Resp. 21–24. Beginning with the preamble of independent claim 1, Comcast contends that Blake teaches “a “method of enabling a user to perform recordings” because Blake discloses selecting programs for recording using a remote user interface on input device 332. Pet. 30 (citing Ex. 1222, 18:1–10; Ex. 1202 ¶ 113). According to Comcast, these selections are sent to central processing system 334, which, in turn, stores program selections made remotely and activates recording device 336 to record the selected program. *Id.* (citing Ex. 1222, 17:13–15, 18:12–16; Ex. 1202 ¶ 113).

Comcast further contends Blake teaches “wherein the local guide generates a display of one or more program listings for display on a display device at the user site” because Blake discloses that a local guide displays television schedule information (i.e., one or more program listings) on a user’s television screen (i.e., a display device) and allows the user to select programs for recording. Pet. 31 (citing Ex. 1222, 6:5–10, 16:12–19, Fig. 12; Ex. 1202 ¶¶ 140–144). Comcast further contends Blake discloses television equipment within a user’s home that includes software that uses television schedule information to generate a local guide. *Id.* (citing Ex. 1222, 4:10–16, 4:26–30, 5:1–6; Ex. 1202 ¶¶ 98–99, 127, 140). Comcast argues that Young, which Blake incorporates by reference in its entirety, further discloses a local guide with interactive features. *Id.* (citing Ex. 1222, 1:20–2:5; Ex. 1223, 7:33–42, 7:60–64, 7:66–8:5, 8:42–66, 10:13–18, 10:45–47,

11:26–28, 12:13–23, 12:46–13:64; Ex. 1202 ¶ 143).

Comcast contends that Blake teaches “generating, with a remote guide accessible by a user of a remote device, a display comprising a plurality of program listings for display on the remote device,” as recited in independent claim 1, because Blake discloses remotely selecting a program to record according to themes using input device 332 (i.e., a “remote device”). Pet. 32–33 (citing Ex. 1222, 17:1–5, 18:1–2, 18:20–23). Comcast contends that, in Blake, input device 332 provides a user interface (i.e., “a remote guide”) that is used to generate a display of television schedule information, such as schedule information matching theme categories selected by the user. *Id.* (citing Ex. 1222, 18:8–10, 18:20–23, 17:22–24; Ex. 1202 ¶¶ 117–119). Comcast also contends that, to the extent the recited “remote guide” requires an interactive guide, such a limitation would have been obvious because Blake and Young teach local interactive program guides providing graphical user interfaces and a person of ordinary skill would have motivated to implement Blake’s remote guide using those same features. *Id.* at 34–35 (citing Ex. 1222, 4:10–14, 4:24–30, 5:1–3, 6:7–10; Ex. 1223, 11:26–28, 11:51–65; Ex. 1202 ¶¶ 91, 93, 120–125, 140–143). Comcast contends that doing so would have been using known techniques (i.e., Blake’s/Young’s interactive program guide (“IPG”) features) to improve a similar device (i.e., Blake’s remote interface on input device 332) to obtain a predictable result (i.e., providing interactive features on the remote guide). *Id.* at 35 (citing Ex. 1202 ¶¶ 121, 123). Comcast also contends that Killian teaches an interactive program guide, and it would have been obvious to implement Blake’s remote guide using the interactive program guide features of Killian to provide benefits such as “allowing viewers to more intelligently select,

schedule, and record their viewing opportunities.” *Id.* (quoting Ex. 1208, 1:20–23) (citing Ex. 1208, Fig. 5, 3:20–33, 4:7–13, 7:8–16, 13:12–21; Ex. 1202 ¶¶ 124–125).

Comcast further contends that Blake teaches “wherein the display is generated by the remote guide based on program guide information received from a local guide implemented on user equipment,” as recited in independent claim 1, because in response to a user selecting a theme in Blake, processing system 334 (i.e., part of the local guide) provides television schedule information to input device 332 for display to the user. Pet. 36 (citing Ex. 1222, 5:2–6, 6:1–10, 6:18–29, 18:1–29; Ex. 1202 ¶¶ 127–134).

Comcast also contends that Blake teaches “wherein the user equipment is remote to the remote device, wherein the user equipment is located at a user site” because a user who is away from home may record a program by using input device 332 to connect to central processing system 334 that activates a recording device in the user’s home (i.e., user equipment) to record the selected program. Pet. 41 (citing Ex. 1222, 4:24–32, 5:1–8, 17:1–5, 17:13–15, 18:12–16, Fig. 1; Ex. 1202 ¶¶ 137–139).

Next, Comcast contends that Blake teaches “receiving, with the remote guide, a user selection of a program listing from the plurality of program listings” because Blake discloses that input device 332 displays a remote guide that allows a user to view and navigate television program listings, make program selections, and control recording device 336 to record a selected program. Pet. 41–42 (citing Ex. 1222, 14:26–32, 16:12–25, 17:1–5, 17:8–12, 17:15–18, 18:1–10, 18:18–23, Fig. 12; Ex. 1202 ¶¶ 116–125, 145–148).

Comcast contends that Blake teaches “transmitting, with the remote guide, a communication to the local guide identifying the program corresponding to the selected program listing via the Internet,” as recited in independent claim 1, because Blake discloses that, after central processing system 334 receives a program recording request from input device 332 over a network, central processing system 334 activates recording device 336 (e.g., VCR 32 illustrated in Figure 1) to record the selected program. Pet. 43 (citing Ex. 1222, 17:13–15, 18:12–16; Ex. 1202 ¶¶ 151–152). Comcast further argues that, consistent with its proposed construction of the claim term “local guide,” Blake’s central processing system 334 is part of the local guide because it implements guide functionality, including recording commands, in support of the local guide. *Id.* (citing Ex. 1202 ¶¶ 152–153). Consequently, Comcast asserts that Blake’s remote guide sending a recording request to central processing system 334 discloses this “transmitting” limitation because Blake’s central processing system 334 constitutes part of the claimed “local guide.” *Id.* at 43–44 (citing Ex. 1202 ¶¶ 152–153).

Lastly, Comcast contends that Blake teaches “receiving the communication with the local guide,” as recited in independent claim 1, because Blake discloses that the recording request sent from the remote guide is received at the home television/guide equipment for recording on recording device 336. Pet. 47 (citing Ex. 1222, 16:29–33, 17:1–5, 18:12–16). Comcast also contends that Blake teaches “responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment,” as recited in independent claim 1, because Blake discloses that, “[i]f a time slot for the time currently indicated by the clock indicates that a program is to be recorded then the channel broadcasting the program is selected and the VCR is controlled to record to the program.” *Id.* at 48 (quoting Ex. 1222, 16:31–33) (citing Ex. 1222, 17:18–19, 18:10–16, 18:23–26; Ex. 1202 ¶¶ 163–165).

Turning to the rationale to combine, Comcast contends that it would have been obvious to one of ordinary skill in the art to implement Killian’s viewer profiles in the remote user interface on Blake’s input device 332 to better track a user’s preferences and generate more effective user interfaces that better identify desired/undesired content. Pet. 29 (citing Ex. 1202 ¶ 110), 38–39 (citing Ex. 1202 ¶ 132). Comcast argues that combining the teachings of Blake and Killian in this manner would have been nothing more than using known techniques (i.e., Killian’s technique of storing user profile data) to improve a similar device (i.e., Blake’s theme-filtered program interface display) in the same way to produce the predictable result of providing users with better access to desired program listings. *Id.* at 29, 39. Comcast further contends a person of ordinary skill would have looked to Killian’s interactive guide features to improve Blake’s similar remote guide

in the same way. *Id.* at 29 (citing Ex. 1208, 3:20–33, 4:7–13, 7:49–61, 8:5–56, 10:61–11:13; Ex. 1202 ¶ 110).

In its Patent Owner Response, Rovi presents a number of arguments that can be grouped as follows: (1) whether Comcast has demonstrated that Blake and Killian, either alone or in combination, account for all the limitations recited in independent claim 1; and (2) whether Comcast has demonstrated that a person of ordinary skill in the art would have combined the teachings of Blake and Killian. *See* PO Resp. 21–40.

a. Limitations

i. Blake Teaches Two Interactive Television Program Guides in Communication with Each Other

Rovi contends that each independent claim requires two interactive television program guides—namely, “a local guide” and “a remote guide”—in communication with each other. *See* PO Resp. 21–23. Rovi argues that, although Blake’s television schedule system allows a user to schedule programs for recording remotely, Blake does not use a separate “remote guide” in communication with a “local guide” to schedule these remote recordings, as required by the claims. *Id.* at 25 (citing Ex. 2206 ¶¶ 152–155). Instead, Rovi argues that Blake’s central processing system 334 is responsible for implementing the transmitting and receiving functionalities of both (1) the remote user interface on Blake’s input device 332; and (2) the local guide on central processing system 334. *Id.*

Rovi contends that Comcast’s position that Blake’s central processing system 334 is part of the claimed “local guide” does not render the claim obvious because central processing system 334 uses a single guide to present content and functionality to input device 332 so that the user can select

television recordings remotely. PO Resp. 25–26 (citing Ex. 1222, 17:10–18, 17:25–30, 18:10–16, 18:18–29; Ex. 2206 ¶¶ 155–159; Ex. 1232, 8–9; Ex. 1233, 18–19). That is, Rovi argues that Blake’s central processing system 334 is the source of the information and functionality presented to the user on Blake’s input device 332. *Id.* at 26 (citing Ex. 1222, 17:10–18, 17:25–30, 18:10–16, 18:18–29; Ex. 2206 ¶¶ 159–161; Ex. 1232, 8–9). According to Rovi, Comcast’s declarant, Dr. Tjaden, supports this line of reasoning because, during his deposition, he stated that Blake’s input device 332 gets “its program guide functionality from” central processing system 334. *Id.* at 27 (quoting Ex. 2205, 139:15–17) (emphasis omitted) (citing Ex. 2205, 139:2–140:8). Consequently, Rovi argues that Blake does not teach two separately identifiable guides because it is central processing system 334—and not input device 332 or a separate remote interactive television program guide—that provides any purported remote guide functionality. *Id.* (citing Ex. 2206 ¶¶ 159–161).

Rovi contends that the prosecution history of the ’801 patent supports its argument that Blake only teaches a single guide. PO Resp. 28. Rovi argues that, not only did the applicants explain that Blake does not teach a remote guide, but they also submitted the Declaration of Dr. George T. Ligler during prosecution that further explains why Blake only teaches a single guide. *Id.* (citing Ex. 1232, 8–9; Ex. 1233, 18–19; Ex. 1234 ¶ 40).

Next, Rovi takes issue with the cross-examination testimony of Dr. Tjaden, particularly his testimony that Blake’s central processing system 334 is somehow not part of the claimed “remote guide.” PO Resp. 28 (citing Ex. 2205, 140:2–8). Rovi argues that Dr. Tjaden did not provide any support for this testimony and, according to Rovi, it is contrary to his other

cross-examination testimony, arguments presented and developed in the Petition, and his Declaration accompanying the Petition. *Id.* at 28–29 (citing Ex. 2205, 139:15–17; Pet. 33; Ex. 1202 ¶¶ 117, 128–129).

Rovi further contends that Blake’s central processing system 334 is used in the same way in Blake’s “themes” embodiment on which Comcast relies. PO Resp. 29–30. Thus, Rovi contends that embodiment also fails to disclose a distinct “remote guide,” as claimed. *Id.* at 30–31 (citing Ex. 2206 ¶¶ 81–82). Rovi argues that it is illogical and internally inconsistent for Comcast and Dr. Tjaden to argue that, when Blake’s central processing system 334 implements functionality for the local guide, it is part of the local guide, but when central processing system 334 implements functionality for the remote guide, it is somehow not part of the remote guide. *Id.* at 31.

In its Reply, Comcast contends that Rovi’s declarant, Dr. Shamos, readily admits that Blake teaches a separate remote guide that communicates with the local guide. Pet. Reply 5. Comcast argues that Dr. Shamos testified at the ITC that a selection made using the remote user interface on Blake’s input device 332 is communicated to Blake’s local guide. *Id.* (citing Pet. 43; Ex. 1246, 1138:5–15). Comcast argues that, even though Dr. Shamos admits this testimony is correct in his Declaration accompanying the Patent Owner Response, he argues that the Board mischaracterized his testimony in the Decision on Institution and clarifies that he never testified that Blake’s input device implements a remote guide. *Id.* (citing Ex. 2206 ¶¶ 83–85). Comcast, however, asserts that the logical conclusion of Dr. Shamos’s testimony is that, if it were obvious to one of ordinary skill in the art for the remote user interface on Blake’s input device 332 to include a

separate guide, then it also would have been obvious to have guide-to-guide communication. *Id.*

Notwithstanding Dr. Shamos's admission at the ITC, Comcast presents three reasons as to why it disagrees with Rovi's argument that the remote user interface on Blake's input device 332 is not a separate guide. Pet. Reply 6–7. First, Comcast contends that the remote user interface on Blake's input device 332 performs all the functions of the claimed “remote guide” and, therefore, satisfies the broadest reasonable interpretation of “remote guide.” *Id.* at 7–10. Second, Comcast contends that Rovi ignores certain aspects of the claimed “local/remote guides” that undermine its arguments. *Id.* at 7, 11–15. In particular, Comcast argues that Blake teaches two guides that interact in the same way as the claimed “local/remote guides.” *Id.* at 7, 12–13 (citing Ex. 1201, 23:36-39; Ex. 1252 ¶ 36). Third, Comcast contends that, in arguing that Blake teaches a single guide, Rovi mischaracterizes the supporting testimony of Comcast's declarant, Dr. Tjaden, and misunderstands the relevant technology. *Id.* at 7, 15–17.

Based on the record developed during trial, we agree with Comcast that Blake teaches two separately identifiable guides in communication with each other. *See* Pet. 30–48. Beginning with the claimed “local guide,” Comcast argues—and we agree—that Blake's central processing system 334, together with recording device 336, teach the claimed “local guide.” *See id.* at 23–24, 31–32, 37. Figure 12 of Blake illustrates an example of a television schedule guide that provides television schedule information in a grid-like display on a television screen. Ex. 1222, 16:12–14. Blake describes the remote recording capabilities of this television schedule guide with reference to Figure 13. *Id.* at 17:1–2. Figure 13 of Blake illustrates

that a user who is away from home employs input device 332 to access and communicably connect to central processing system 334. *Id.* at 17:3–5.

With respect to Blake’s “theme” embodiment, Blake states that processing system 334 “present[s] a list of [basketball] games to the user, and the user may select one or more games to record.” Ex. 1222, 18:10–12. After the user has made his/her selection, processing system 334 confirms the user’s selection, stores that information upon receiving confirmation from the user, and, at the appropriate time, activates recording device 336 located at the user’s home to record the selected game. *Id.* at 18:12–16. Based on these disclosures in Blake, we find that Blake’s central processing system 334, together with recording device 336, implements the claimed “local guide.”

Our finding in this regard is consistent with the plain language of the independent claims of the ’801 patent. These claims delineate the functions of the “local guide,” “remote guide,” and “user equipment.” In particular, it is the responsibility of the “local guide” to “receiv[e] the communication” and “schedul[e] . . . the program corresponding to the selected program listing for recording by the user equipment.” *E.g.*, Ex. 1201, 40:27–30. Similar to the claimed “local guide,” Blake’s central processing system 334 also receives a communication identifying a television program to be recorded and then uses recording device 336 to record the program. Ex. 1222, 18:12–16.

Our finding that Blake’s central processing system 334 implements, in part, the claimed “local guide” also is consistent with our construction of “guide.” In our claim construction section above, we determine that the broadest reasonable interpretation of a “guide” is “software operative at least

in part to generate a display of television program listings.” *See supra* Section II.A. We clarify that neither the intrinsic or extrinsic record limits a “guide” to a single software application. *See supra* Section II.A. Consequently, when the software on Blake’s central processing system 334 works in conjunction with input device 332 to render a television schedule guide that allows a user to select desired programs for recording according to themes, we find that it effectively operates as part of a “guide” because it generates a display of television program listings. We also note that, when the software on Blake’s central processing system 334 works in conjunction with input device 332, it teaches an interactive guide because it allows the user to navigate through the listings, make selections, and control recording functions.

Comcast’s declarant, Dr. Tjaden, provides testimony supporting our finding that Blake’s central processing system 334 implements, in part, the claimed “local guide.” In his Declaration accompanying the Petition, Dr. Tjaden testifies that “the local guide is implemented at least in part on a server or other device outside the user’s home.” Ex. 1202 ¶¶ 36, 128. Dr. Tjaden further testifies that the “local guide equipment and local guide could include hardware and software of a central data server, such as software that is implemented on central processing system 334 to activate recording a program on . . . recording device [336].” *Id.* ¶ 128. We credit the aforementioned testimony of Dr. Tjaden because it takes into account the reasonable inferences one of ordinary skill in the art would draw to explain how Blake’s central processing system 334 works in conjunction with input device 332 to render a television schedule guide that allows a user to select desired programs for recording according to themes at recording device 336.

See KSR, 550 U.S. at 418 (explaining that an obviousness evaluation “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ”).

Turning to the claimed “remote guide,” Comcast argues—and we agree—that the remote user interface on Blake’s input device 332 teaches the claimed “remote guide.” *See* Pet. 25–26, 33–34. With respect to Blake’s “theme” embodiment, the user enters input in the form of theme data into input device 332, which may be, among other things, a personal or laptop computer. Ex. 1222, 17:5–8, 18:1–12, Claims 1, 7. In this embodiment, the user first selects to record a program by themes, then selects sports, then basketball, at which time the user is presented with a list of basketball games, and the user selects the game to be recorded. *Id.* at 18:5–10. Based on these disclosures in Blake, we find that the remote user interface on Blake’s input device 32 implements the claimed “remote guide.”

Our finding in this regard is consistent with the plain language of the independent claims of the ’801 patent. As we explain previously, these claims delineate the functions of the “local guide,” “remote guide,” and “user equipment.” In particular, it is the responsibility of the “remote guide” to “generat[e] a display comprising a plurality of program listings for display on the remote device”; “receiv[e] . . . a user selection of a program listing from the plurality of program listings”; and “transmit[] . . . a communication to the local guide identifying the program corresponding to the selected program listing.” *E.g.*, Ex. 1201, 40:8–26. Similar to the claimed “remote guide,” the remote user interface on Blake’s input device 332 also generates a display by rendering a television schedule guide that permits selections

according to themes, receives selections within the display, and then transmits those selections to central processing system 334, which, as we explain previously, partially implements the claimed “local guide.” Ex. 1222, 18:1–12.

Our finding that the remote user interface on Blake’s input device 332 implements the claimed “remote guide” also is consistent with our construction of a “guide.” In our claim construction section above, we determine that the broadest reasonable interpretation of a “guide” is “software operative at least in part to generate a display of television program listings.” *See supra* Section II.A. When the remote user interface on Blake’s input device 332 generates a display by rendering a television schedule guide that allows a user to select desired programs for recording according to themes, we find that it effectively operates as a “guide” because it generates a display of television program listings. We also note that, when the remote user interface on Blake’s input device 332 generates a display by rendering a television schedule guide that allows a user to select desired programs for recording according to themes, it teaches an interactive guide because it allows the user to navigate through the listings, make selections, and control recording functions.

Comcast’s declarant, Dr. Tjaden, provides testimony supporting our finding that the remote user interface of Blake’s input device 332 implements the claimed “remote guide.” Dr. Tjaden testifies that “[a person of ordinary skill in the art] . . . would have concluded that Blake’s input device 332 implements control software for interactively selecting programs for recording by themes and transmitting program selections.” Ex. 1252 ¶ 32 (citing Ex. 1222, 17:1–8, 18:1–23). Dr. Tjaden further testifies that

“[t]his control software, which is implemented on Blake’s remote personal computer (*i.e.*, [Blake’s] input device 332), is separate from the local program guide software on Blake’s control processing system 334 and [recording equipment 336].” *Id.* ¶ 33 (citing Ex. 1222, Fig. 13). We credit the aforementioned testimony of Dr. Tjaden because it takes into account the reasonable inferences one of ordinary skill in the art would draw to explain how the remote user interface of Blake’s input device 332 generates a display by rendering a television schedule guide that permits selections according to themes, receives selections within the display, and then transmits those selections to central processing system 334. *See KSR*, 550 U.S. at 418.

Rovi’s declarant from the ITC proceeding, Dr. Shamos, who also happens to be Rovi’s declarant in this proceeding, admitted that the user’s selection made at Blake’s input device 332 is communicated to the local guide. This testimony provides:

Q Doctor - - okay. My question is when a program is chosen for recording at input device 332, that’s going to be communicated to central processing system 334; right?

A That’s correct.

Q And then that selection at - -that would be at central processing system 334 is going to be communicated to the VCR 32; right?

A Yes.

Q So that selection is going to be communicated to the local interactive program guide in figure 1; right?

A Yes, it is.

Ex. 1246, 1138:5–15.

In his Declaration accompanying the Patent Owner Response, Dr. Shamos acknowledges this testimony at the ITC and admits “[t]hat testimony was correct, and I stand by it.” Ex. 2206 ¶ 83. Nevertheless, Dr. Shamos avers that he did not testify that Blake’s “input device 332 implemented a remote [guide].” *Id.* ¶ 85.

Although Dr. Shamos asserts that this testimony is mischaracterized because it does not indicate that input device 332 implements a remote guide, Dr. Shamos still stands by his testimony, which acknowledges that a recording selection made at input device 332 is communicated to the local guide. Ex. 2206 ¶ 83. Dr. Shamos’s testimony may not expressly identify that the remote user interface of Blake’s input device 332 makes and communicates the recording selection by way of a remote guide, but at the same time Dr. Shamos does not dispute Dr. Tjaden’s point that Blake’s input device 332, as a remote personal or laptop computer, implements control software for interactively selecting programs for recording by themes. *See* Ex. 1202 ¶¶ 104, 118; Ex. 1252 ¶¶ 32, 33. This control software that is implemented on the remote personal or laptop computer (i.e., the remote user interface of Blake’s input device 332) constitutes the remote guide and is separate from the local guide to which the communication is being directed. Ex. 1252 ¶¶ 32, 33. Accordingly, the user’s selection referred to in Dr. Shamos’s testimony reproduced above is communicated between the remote guide implemented on the remote user interface of Blake’s input device 332 (i.e., the control software that is implemented on the remote personal or laptop computer) and a local guide implemented, in part, on Blake’s central processing system 334.

If we were to accept Rovi's argument that Blake only teaches a single guide, then it is not clear to us how the user's selection, referred to in Dr. Shamos's testimony reproduced above, is communicated between the remote user interface of Blake's input device 332 and a local guide implemented, in part, on Blake's central processing system 334. In essence, Dr. Shamos would be testifying that Blake teaches a single guide that communicates with itself. This is illogical. Neither Rovi nor Dr. Shamos adequately explain how or why a single guide would need to communicate a user's selection to itself, unless, as Comcast asserts, Blake teaches two separately identifiable guides in communication with each other.

We do not agree with Rovi's argument that Blake teaches a single guide because input device 332 receives some of its program guide functionality from central processing system 334. *See* PO Resp. 25–27. The specification of the '801 patent does not preclude the remote guide from receiving some of its program guide functionality from the local guide. Indeed, the specification discloses that remote and local guides may be the same guide compiled to run on two different platforms. Ex. 1201, 15:15–18. The specification also discloses that the “remote guide” derives some functionality from the “local guide.” For instance, with reference to the steps involved in providing remote access to guide features in accordance with the principle of the '801 patent, the specification discloses that “the remote access program guide provides the user with the opportunity to remotely access functions of the interactive program guide over the remote access link.” *Id.* at 23:36–39. These program guide functions include, among other things, “*accessing programming information.*” *Id.* at 16:20–26 (emphasis added); *see also* Ex. 2206 ¶ 17 (Dr. Shamos testifies that the

guides of the '801 patent “allow users to access additional information about television program listings.”). Consequently, the claimed “remote guide” derives some program guide functionality from the claimed “local guide,” such as accessing program guide information that is presented to the user remotely. Similarly, the remote guide implemented on the remote user interface on Blake’s input device 332 derives some program guide functionality from the local guide implemented, in part, on central processing system 334 by accessing program guide information that is presented to the user remotely. Ex. 1222, 18:1–23.

We also do not agree with Rovi’s argument that the prosecution history of the '801 patent supports its argument that Blake only teaches a single guide. *See* PO Resp. 28. The applicants prosecuting the '801 patent did not have the benefit of (1) our construction of the claim terms “local/remote guides,” particularly our clarification that neither the intrinsic or extrinsic record limits the “guide” to a single software application (*see supra* Section II.A); (2) the testimony from Dr. Shamos at the ITC that Blake’s input device 332 communicates the user’s selection to the local guide (Ex. 1246, 1138:5–15); and (3) the supporting testimony of Comcast’s declarant, Dr. Tjaden, who consistently takes the position that Blake teaches two separately identifiable guides in communication with each other (*see* Ex. 1202 ¶¶ 104, 118; Ex. 1252 ¶¶ 32, 33).

Lastly, we do not agree with Rovi’s arguments that the supporting testimony of Comcast’s declarant, Dr. Tjaden, is illogical and internally inconsistent. *See* PO Resp. 29–31. Rovi takes issue with Dr. Tjaden’s testimony that Blake’s central processing system 334 provides some program guide functionality to the remote user interface on input device 332,

but that central processing system 334 itself is not part of the remote guide. Ex. 1202 ¶ 129; Ex. 2205, 139:15–17. We do not view Dr. Tjaden’s testimony in this regard as illogical and internally inconsistent. In his Declaration accompanying the Reply, Dr. Tjaden testifies that “Blake’s remote input device 332 would necessarily get its program guide information from the central processing system 334, . . . [b]ut it is Blake’s remote input device 332 that executes the control functionality . . . , and therefore implements the remote guide under the broadest reasonable interpretation.” Ex. 1252 ¶ 35. As we explain above, we credit Dr. Tjaden’s testimony that “Blake’s input device 332 implements control software for interactively selecting programs for recording by themes and transmitting program selections” (*id.* ¶ 32), which “is separate from the local program guide software on Blake’s central processing system 334 and [recording equipment 336]” (*id.* ¶ 33). In other words, we agree with Comcast and Dr. Tjaden that, although Blake’s input device 332 interacts with central processing system 334, the remote user interface of input device 332 implements its own separately identifiable remote guide. Pet. Reply 15–16. We also agree with Comcast and Dr. Tjaden that the remote user interface of Blake’s input device 332 falls within the broadest reasonable interpretation of the claimed “remote program guide,” even if it receives program guide information and some functionality from central processing system 334. *Id.* at 16 (citing Ex. 1252 ¶¶ 40–42).

As we explain above, although the remote user interface on Blake’s input device 332 receives some of its program guide functionality from central processing system 334, we agree with Dr. Tjaden that it is still the remote user interface on Blake’s input device 332 that implements the

remote guide—not central processing system 334. Indeed, the remote guide implemented by the remote user interface on Blake’s input device 332 interacts with the local guide implemented, in part, on central processing system 334 in the same manner as the claimed “local/remote guide” interact with one another because both sets of guides permit the remote guide to access certain functions of the local guide, such as accessing program guide information that is presented to the user remotely. *Compare* Ex. 1222, 17:1–5, 18:1–16, *with* Ex. 1201, 16:20–26, 23:36–39.

ii. Blake’s Remote User Interface on Input Device 332 Includes Interactive Features

Rovi contends that, even assuming that the remote user interface on Blake’s input device 332 is a separate guide, and that guide is implemented on input device 332 (and not on central processing system 334), Comcast does not demonstrate that any purported interface on Blake’s input device 332 constitutes a “guide,” as claimed. PO Resp. 32. Rovi argues that Blake does not disclose the appearance or content of the remote user interface on input device 332, such as whether the content includes the following: (1) television program listings with channel and start time information; and (2) the ability of the user to navigate through the television program listings, or make selections. *Id.* (citing Ex. 2206⁷ ¶¶ 74–78, 83).

Rovi contends that Blake is devoid of any disclosure with respect to Figure 13 as to how the program guide is displayed on the remote user interface of input device 332. PO Resp. 33 (citing Ex. 2206 ¶¶ 73–75, 156; Pet. 24–25; Ex. 2205, 145:14–146:3). According to Rovi, Comcast never

⁷ We understand Rovi’s citation to Exhibit 2208 to be a typographical error.

asserts that the television schedule guide illustrated in Blake’s Figure 12, or any guide that resembles it, is displayed in the remote user interface of input device 332 illustrated in Figure 13. *Id.* Indeed, Rovi argues that Blake contemplates, when a user dials in by telephone, he/she may be presented with “themes” and make a selection orally. *Id.* (citing Ex. 1222, at [57]; Ex. 2206 ¶¶ 73, 78; Ex. 2205, 144:19–145:4). Rovi further contends that there is no disclosure with respect to Blake’s “theme” embodiment that suggests presenting the user with a display of television program guide information, including things like channel information or television program start times, as would be required by the claimed “guide.” PO Resp. 33 (citing Ex. 1222, 12:12–23, 18:1–16; Ex. 2206 ¶¶ 81–82).

Lastly, Rovi asserts that Blake does not teach using a “remote guide.” PO Resp. 34. Rovi argues that, by choosing not to implement a “remote guide” on the remote user interface of input device 332, Blake offers the user greater versatility, including allowing the user to submit requests via telephone or email. *Id.* (citing Ex. 1222, at [57], 18:28–30; Ex. 2206 ¶¶ 78, 85, 156, 170). Rovi further argues that most of the embodiments disclosed in Blake are silent as to whether input device 332 has any display at all or, in many instances, these embodiments clearly indicate that input device 332 has no such display. *Id.* As additional support for this argument, Rovi contends that a “guide” would be unnecessary for other embodiments disclosed in Blake, such as those where the user enters a predetermined program code or the title of a television program via input device 332. *Id.* at 34–35 (citing Ex. 2206 ¶ 171).

In its Reply, Comcast contends that the testimony of Dr. Ligler during prosecution of a related application supports its argument that the remote user interface on Blake's input device 332 displays television program listings. Pet. Reply 6. According to Comcast, Dr. Ligler recognized that the remote user interface on Blake's input device 332 displays a guide when he testified that Blake "disclose[s] display of program listings on input device 332 (when selecting a program according to themes)." *Id.* (quoting Ex. 1234 ¶ 35).

Notwithstanding Dr. Ligler's admission during prosecution of a related application, Comcast provides a number of reasons as to why it disagrees with Rovi's argument that Blake is silent as to the appearance and content of the remote guide implemented on the remote user interface of Blake's input device 332. Pet. Reply 17. Comcast argues that, beyond displaying a program listing, which is taught by Blake, the claims do not require the appearance or content of the claimed "remote guide." *Id.* According to Comcast, after a theme is selected, the remote guide may include a list of theme programs that may be displayed in time order. *Id.* (citing Ex. 1222, 12:12–15, 13:3–5, 18:1–16). Comcast acknowledges that, although Blake does not disclose what the remote guide "looks like," a person of ordinary skill in the art still would have understood from Blake's disclosure what content needs to appear and how that content may appear (e.g., how to sort the content). *Id.* (citing Ex. 1252 ¶¶ 25, 26). Comcast then reiterates that Blake clearly teaches using the remote user interface of input device 332 to navigate through program listings using theme selections. *Id.* at 17–18 (citing Pet. 25–26; Ex. 1202 ¶¶ 117–119; Ex. 1252 ¶¶ 25, 32, 39).

Based on the record developed during trial, we agree with Comcast that the remote user interface on Blake’s input device 332 generates a display by rendering a guide, similar to the one illustrated in Figure 12. *See* Pet. 31–42. As we explain previously, Figure 12 of Blake illustrates an example of a television schedule guide that provides television schedule information in a grid-like display on a television screen. Ex. 1222, 16:12–14. Blake describes the remote recording capabilities of this television schedule guide with reference to Figure 13. *Id.* at 17:1–2. With respect to Blake’s “theme” embodiment, the user enters input in the form of theme data into input device 332, which may be, among other things, a personal or laptop computer. *Id.* at 17:5–8, 18:1–12, Claims 1, 7. In this embodiment, the user first selects to record a program by themes, then selects sports, then basketball, at which time the user is presented with a list of basketball games, and the user selects the game to be recorded. *Id.* at 18:5–10. Based on these disclosures in Blake, we find that the remote user interface of input device 332 generates a display by rendering a television schedule guide that allows a user to select desired programs for recording according to themes.

Comcast’s declarant, Dr. Tjaden, provides testimony supporting our finding in this regard. In his Declaration accompanying the Petition, Dr. Tjaden testifies that Blake’s input device 332 includes control software that “allows a user to navigate through the program themes/listings, make theme/program selections, and control functions of the software (*e.g.*, scheduling a recording on . . . local recording device [336]).” Ex. 1202 ¶ 118 (citing Ex. 1222, 17:13–19, 17:22–24, 18:1–16). In his Declaration accompanying the Reply, Dr. Tjaden clarifies that “[a person of ordinary skill in the art] would have recognized this user interface as a menu-based

guide that allows a user to navigate through a menu structure to access the sorted program listings.” Ex. 1252 ¶ 25 (citing Ex. 1222, 13:1–5, 18:5–10). We credit Dr. Tjaden’s aforementioned testimony because it is consistent with the disclosures in Blake identified above.

Dr. Ligler’s testimony submitted during prosecution of a related application also supports our finding that the remote user interface of Blake’s input device 332 generates a display by rendering a television schedule guide that allows a user to select desired programs for recording according to themes. *See* Pet. Reply 6. With reference to the embodiments on page 18 of Blake, which includes the “theme” embodiment, Dr. Ligler testifies that Blake “disclose[s] display of program listings on input device 332 (when selecting a program according to themes).” Ex. 1234 ¶ 35. This testimony from Dr. Ligler undermines Rovi’s argument that Blake’s “theme” embodiment does not present the user with a display of television program guide information, as required by our construction of a “guide.”

We recognize that, when testifying that Blake’s input device 332 displays program listings according to themes, Dr. Ligler immediately follows this testimony by averring that the embodiments on page 18 of Blake “do not disclose the claimed ‘two guide’ approach.” Ex. 1234 ¶ 35. We, however, accord Dr. Ligler’s testimony in this regard little, if any, weight because he did not have the benefit of (1) our construction of the claim terms “local/remote guides,” particularly our clarification that neither the intrinsic or extrinsic record limits the “guide” to a single software application (*see supra* Section II.A); (2) the testimony from Dr. Shamos at the ITC that Blake’s input device 332 communicates the user’s selection to the local guide (Ex. 1246, 1138:5–15); and (3) the supporting testimony of

Comcast's declarant, Dr. Tjaden, who consistently takes the position that Blake teaches two separately identifiable guides in communication with each other (*see* Ex. 1202 ¶ 127; Ex. 1252 ¶¶ 31, 33). In addition, there is not a clear indication on this record as to whether the Examiner found this specific testimony by Dr. Ligler to be persuasive.

We do not agree with Rovi's arguments that Blake does not disclose the appearance or content of the remote user interface on input device 332 and, therefore, cannot teach the claimed "remote guide." *See* PO Resp. 32–35. This argument is not commensurate in scope with the independent claims because these claims do not require the claimed "remote guide" to have a specific appearance or to include certain content. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (explaining that limitations not appearing in the claims cannot be relied upon for patentability). Instead, as Comcast correctly notes in its Reply (*see* Pet. Reply 17–18), these claims only require "generating . . . a display comprising a plurality of program listings for display on the remote device" (*e.g.*, Ex. 1201, 40:8–10), without specifying the appearance of such display or the inclusion of certain content. Consequently, Rovi's attempt to patentably distinguish the independent claims from Blake's television schedule system based on features not required by these claims is misplaced.

iii. Remaining Limitations

In its Patent Owner Response, Rovi does not address separately whether the combined teaching of Blake and Killian account for the remaining limitations of independent claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51. *See generally* PO Resp. 21–40. We have reviewed Comcast's explanations and supporting evidence as to how this proffered

combination teaches these remaining limitations, and we agree with and adopt Comcast's analysis. *See* Pet. 9–13, 21–48, 51.

b. Comcast Presents a Sufficient Rationale to Combine the Teachings of Blake and Killian

Rovi contends that Comcast fails to explain how or why one of ordinary skill in the art would have been prompted to modify Blake's television schedule system to include Killian's viewer profiles. PO Resp. 35. According to Rovi, Comcast relies on conclusory statements that are insufficient to support a conclusion of obviousness. *Id.* at 36 (citing Ex. 2206 ¶¶ 175, 176).

Rovi contends that a person of ordinary skill in the art would not have combined the teachings of Blake and Killian because these references have fundamentally different teachings and purposes. PO Resp. 37. Rovi argues that Blake is directed to scheduling a recording from a remote location using a variety of remote input devices, whereas Killian is directed to offering a viewer an optimized local television program guide with local viewer profiles. *Id.* Rovi further argues that Blake's "theme" embodiment allows a user to narrow programs by categories of interest. *Id.* According to Rovi, Comcast offers no motivation as to why Killian's viewer profiles, which offer an alternative to identify and narrow desired content, would be needed in Blake's television schedule system. *Id.* (citing Ex. 2206 ¶ 177).

Moreover, Rovi contends that Comcast fails to address how a person of ordinary skill in the art would have provided Killian's viewer profiles to Blake's input device 332. PO Resp. 37 (citing Ex. 2206 ¶ 177). Rovi argues that reconfiguring Blake's television schedule system to incorporate Killian's viewer profiles would unnecessarily complicate Blake's system

because Blake offers simple remote user interfaces, whereas Killian stores viewer profiles accessed by a “suggest module” on a JAVA-based platform coupled to profile database 80 and “provide[s] more sophisticated collective displays than were possible using prior systems.” *Id.* at 37–38 (quoting Ex. 1208, 2:1–11, 5:34–38) (citing Ex. 2206 ¶¶ 92, 175–179).

Next, Rovi contends, that even it were to assume that Comcast clearly explains which elements in Killian it proposes incorporating into Blake and how a person of ordinary skill in the art would have implemented those elements from Killian in Blake’s television schedule system, Comcast fails to explain the necessary motivation for doing so. PO Resp. 38 (citing Ex. 2206 ¶¶ 179–181). Rovi argues that Comcast fails to identify the problem in Blake a person of ordinary skill in the art would have been motivated to solve by implementing Killian’s viewer profiles. *Id.* (citing Ex. 2206 ¶ 181). According to Rovi, Killian’s viewer profiles would serve no purpose in most of Blake’s embodiments, such as those where the user enters a predetermined program code or calls via telephone to schedule the recording. *Id.* (citing Ex. 2206 ¶ 179). Rovi argues that Comcast’s rationale to combine the teachings of Blake and Killian depends entirely upon a person of ordinary skill in the art being motivated to modify only a subset of Blake’s user input devices (i.e., those devices capable of rendering a display) for only one of four separately disclosed embodiments (i.e., Blake’s “theme” embodiment). *Id.* Consequently, Rovi asserts that Comcast’s rationale to combine the teachings of Blake and Killian is based on conjecture and, therefore, does not amount to a sufficient motivation to combine. *Id.*

In its Reply, Comcast maintains that a person of ordinary skill in the art would have recognized that Killian’s viewer profiles would work in

Blake's television schedule system. Pet. Reply 23 (citing Pet. 28–29, 36–40; Ex. 1202 ¶¶ 131–133). Comcast argues that, although Blake's remote and local guides differ in function, they are similar to the extent that both display and allow user selection of program listings. *Id.* at 23–24 (citing Ex. 1252 ¶¶ 48–52). Comcast, therefore, argues that it would have been obvious to one of ordinary skill in the art to apply Blake's teachings with respect to the local guide to its remote guide. *Id.* at 24. Next, Comcast argues that Blake teaches that its guides present a customized line-up of channels. *Id.* (citing Ex. 1222, 16:20–22; Ex. 1202 ¶¶ 104, 110, 121). Similarly, Comcast argues that Killian's viewer profiles are used to generate tailored displays of program listings. *Id.* (citing Pet. 28–29, 36–40; Ex. 1202 ¶¶ 108, 110, 131–132). Given these similarities, Comcast asserts that a person of ordinary skill in the art would have found it obvious to use Killian's viewer profiles to improve Blake's local and remote guides. *Id.* (citing Ex. 1252 ¶¶ 61–64).

Comcast further contends that Killian's viewer profiles are complementary to and compatible with Blake's theme selections. Pet. Reply 24. According to Comcast, Killian's viewer profiles beneficially “track a user's preference” to “generate more effective user interfaces.” *Id.* at 25 (citing Pet. 29). Comcast then asserts that a person of ordinary skill in the art would have viewed Blake's theme selections and Killian's profile-specific listings as complementary techniques, both of which are capable of being employed in Blake's remote guide. *Id.* at 25 (citing Ex. 1252 ¶ 64). Comcast further argues that, because Blake's remote guide already offered multiple ways to select programs, some of which may have been preferred over others, it would have been obvious to one of ordinary skill in the art to

improve Blake's local and remote guides with Killian's viewer profiles. *Id.* (citing Ex. 1252 ¶¶ 62–64).

The Supreme Court has held that an obviousness evaluation “cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents.” *KSR*, 550 U.S. at 419. Instead, the relevant inquiry is whether Comcast has set forth “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in KSR*, 550 U.S. at 418. When describing examples of what may constitute a sufficient rationale to combine, the Supreme Court elaborated that, “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR*, 550 U.S. at 417.

Based on the record developed during trial, we agree with Comcast that one of ordinary skill in the art would have had a sufficient reason to implement Killian's viewer profiles in Blake's television schedule system. When, as here, a technique has been used to improve one device (i.e., Killian's technique of generating program guide displays based on viewer profiles), and one of ordinary skill in the art would have recognized that it would improve similar devices in the same way (i.e., applying Killian's technique to Blake's television schedule system, thereby allowing the remote user interface on Blake's input device 332 to generate a display by rendering television program listings based on user preferences), using the technique is obvious unless its actual application is beyond the skill level of

an ordinary skilled artisan. *See* Pet. 26–27, 35, 37–39; Ex. 1202 ¶¶ 110, 131–132. The record includes credible evidence explaining why applying Killian’s technique to Blake’s television schedule system would not have been uniquely challenging or otherwise beyond the skill level of an ordinary skilled artisan. Comcast’s declarant, Dr. Tjaden, provides the necessary motivation for doing so—namely, “to better track a user’s preferences and generate more effective user interface[s]” in order to “better [identify] . . . desired/undesired content.” Ex. 1202 ¶¶ 110, 132.

We do not agree with Rovi’s arguments that Blake and Killian have fundamentally different teachings and purposes. *See* PO Resp. 37–40. As an initial matter, Blake generally relates to a television schedule system with enhanced recording capability. Ex. 1222, 1:17–19. In particular, Blake discloses that a user may select a program for automatic, unattended recording by highlighting and selecting the desired program in a television schedule guide, such as the one illustrated in Figure 12. *Id.* at 16:12–14, 16:17–19, 16:22–25. Similarly, Killian generally relates to an electronic programming guide that operates on a computing platform using information from the Internet for display on a television. Ex. 1208, 2:1–3, 3:18–23; *see also* Ex. 1202 ¶ 109 (Dr. Tjaden testifies that “[t]he general area of technology of Killian is also the same as Blake; namely, that of interactive electronic program guides . . . , and remote or local access to and use of [interactive electronic program guides] to control end-user video equipment.” (citing Ex. 1208, at [54], 1:7–9)). Consequently, we find that Blake and Killian fall in the same field of endeavor.

Dr. Tjaden’s testimony supports our finding that Blake and Killian are not fundamentally different and incompatible. In his Declaration

accompanying the Petition, Dr. Tjaden testifies that the remote user interface on Blake's input device 332 "allows the user to filter program listings according to themes, tracks the user's selections, and stores that information at [central] processing system 334." Ex. 1202 ¶ 110 (citing Ex. 1222, 18:1–10, 18:12–14). Dr. Tjaden then testifies that Killian teaches customizing program guides "based on user profile information stored locally or remotely." *Id.* (citing Ex. 1208, 9:10–25, 11:20–21). Because the systems of Blake and Killian both store information specific to each user, Dr. Tjaden testifies that "[a person of ordinary skill in the art] would have recognized that Killian's [viewer profiles] could be used to store information about user preferences in Blake's television schedule system]. . . . This would be done for the purpose of customizing the remote access guide (i.e., the 'remote theme guide'), providing the advantages discussed in Killian." *Id.* (emphasis omitted). In his Declaration accompanying the Reply, Dr. Tjaden clarifies that "a [person of ordinary skill in the art] would not have had to replace or discard Blake's theme selections to implement [Killian's] profile-based selections. The addition of Killian's profile-based selections would be a usability gain without any tradeoffs for the user." Ex. 1252 ¶ 63 (citing Ex. 1202 ¶ 132).

We also do not agree with Rovi's argument that integrating Killian's viewer profiles into Blake's television schedule system would unnecessarily complicate Blake's system. *See* PO Resp. 37–38. This argument is predicated on the notion Comcast's proposed combination of Blake and Killian somehow includes the bodily incorporation of Killian's "suggest module" on a JAVA-based platform. *See id.* Killian's "suggest module" on a JAVA-based platform, however, is not relevant to Comcast's ground based

on the combined teachings of Blake and Killian—only Killian’s technique of generating program guide displays based on viewer profiles. *See In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (“Combining the teachings of references does not involve an ability to combine their specific structures.”). Stated differently, Comcast does not advocate combining Killian’s “suggest module” on a JAVA-based platform with Blake’s television schedule system. Instead, Comcast argues that applying Killian’s technique of generating program guide displays based on viewer profiles to Blake’s television schedule system would allow the remote user interface on Blake’s input device 332 to generate a display by rendering television program listings based on user preferences. For the reasons we identify above, the evidence of record supports Comcast’s explanation in this regard. *See* Pet. 26–27, 35, 37–39; Ex. 1202 ¶¶ 110, 131–132.

In any event, even if we were to assume that Comcast’s proposed combination of Blake and Killian somehow includes the bodily incorporation of Killian’s “suggest module” on a JAVA-based platform, which, as we explain above, it does not, Comcast presents supporting testimony from Dr. Tjaden that indicates Blake’s input device 332 would be capable of implementing a JAVA-based user interface. In his Declaration accompanying the Reply, Dr. Tjaden testifies that, because Blake discloses a scenario where input device 332 is a laptop computer, “[the laptop computer] would have had no problem implementing Killian’s JAVA-based user interfaces if desired.” Ex. 1252 ¶ 65 (citing Ex. 1222, 17:5–8). We credit this testimony from Dr. Tjaden because there is no evidence of record to suggest that, in the scenario where Blake’s input device 332 is a laptop computer (Ex. 1222, 17:5–8), the laptop computer is anything other than a

general purpose computer capable of implementing a variety of software platforms, including one based on JAVA.

In addition, we do not agree with Rovi's arguments that Comcast must identify a problem in Blake that a person of ordinary skill in the art would have been motivated to solve in order to implement Killian's viewer profiles in Blake's television schedule system. See PO Resp. 38. If we were to accept this line of argument, it would run contrary to the principles of law articulated in *KSR*. In *KSR*, the Supreme Court emphasized "an expansive and flexible approach" to an obviousness evaluation. 550 U.S. at 415; *see also Jazz Pharm., Inc. v. Amneal Pharm., LLC*, 895 F.3d 1347, 1363 (Fed. Cir. 2018) ("*KSR* did not impose a rigid requirement to identify . . . a problem to be solved in the art . . ."). The Court stated that, "[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents," amongst other things, "to determine whether there was apparent reason to combine the known elements in the fashion claimed by the patent at issue." 550 U.S. at 418. Moreover, the Court explained that, "[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* at 420.

Comcast's analysis is in line with these principles of law. Relying on the supporting testimony of Dr. Tjaden as evidence of the background knowledge of one ordinary skill in the art, Comcast looked to the interrelated teachings of Blake and Killian—specifically, their overlapping teachings with respect to television program guides and storing information specific to each user—to ascertain whether there was a sufficient reason to combine certain aspects of those elements to arrive at the claimed invention. *See* Pet.

26–27, 35, 37–39; Ex. 1202 ¶¶ 110, 131–132. Comcast further explained that using Killian’s user profile data in Blake’s television schedule system would have allowed the system to better track a user’s preferences, generate more effective user interfaces, and better identify desired and undesired content. Pet. 29, 38–39. Rovi does not direct us to, nor are we aware of, any persuasive authority that requires a party to demonstrate obviousness by specifically identifying a problem in a first prior art reference that a person of ordinary skill in the art would have been motivated to solve in order to implement the interrelated teachings of a second prior art reference.

Lastly, we do not agree with Rovi’s argument that Comcast’s rationale to combine the teachings of Blake and Killian is based on conjecture and, therefore, does not amount to sufficient motivation to combine. *See* PO Resp. 38–39. As we explained above, both Comcast and Dr. Tjaden provide sufficient reasoning as to why it would have been obvious to one of ordinary skill in the art to combine the teachings of Blake and Killian. *See* Pet. 26–27, 35, 37–39; Ex. 1202 ¶¶ 110, 131–132. This reasoning is not based on conjecture because it is directed specifically to the subject matter at issue in the independent claims, and there is a sufficient basis in the record to support such reasoning. As a result, instead of presenting reasoning that is based on conjecture, as asserted by Rovi, Comcast has articulated sufficient reasoning with rational underpinnings to support a conclusion of obviousness—namely, use of a known technique (i.e., Killian’s technique of generating program guide displays based on viewer profiles) to improve similar devices (i.e., Blake’s television schedule system) in the same way (i.e., by allowing the remote user interface on

Blake's input device 332 to generate a display by rendering television program listings based on user preferences).

c. Summary

In summary, Comcast has demonstrated by a preponderance of the evidence that the subject matter of independent claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51 would have been obvious over the combined teachings of Blake and Killian.

4. Dependent claims

In its Patent Owner Response, Rovi does not address separately whether the combined teaching of Blake and Killian account for the limitations of the dependent claims. *See generally* PO Resp. 21–40. We have reviewed Comcast's explanations and supporting evidence as to how this proffered combination teaches these limitations, as well as its explanations as to how one ordinary skill in the art would have combined the relevant teachings of Blake with those of Killian, and we agree with and adopt Comcast's analysis. *See* Pet. 49–70. Comcast, therefore, has demonstrated by a preponderance of the evidence that the subject matter of the dependent claims would have been obvious over the combined teachings of Blake and Killian.

III. CONCLUSION

Comcast has demonstrated by a preponderance of the evidence that claims 1–54 are unpatentable under § 103(a) over the combined teachings of Blake and Killian

IV. ORDER

Accordingly, it is
ORDERED that claims 1–54 of the '801 patent are held to be
unpatentable; and

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

IPR2017-01143
Patent 8,046,801 B2

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