

No. 19-__

**In the
Supreme Court of the United States**

COMCAST CORPORATION, ET AL.,

Petitioners,

v.

INTERNATIONAL TRADE COMMISSION, ET AL.,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED
STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

APPENDIX VOLUME II OF III

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bidirectional remote access link.” The construction comports with the plain purpose of the “remote . . . device” and also accounts for the additional words (*e.g.*, interactive television) in this term. *See CAE Screenplates*, 224 F.3d at 1317 (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”).

(6) *User television equipment*

This term appears in claims 1, 2, 6, 9, 12, 15, and 18, and it is used many times in the specification. *See generally* JX-0002. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
any equipment capable of use by a user to display program listings and to record television programs	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 49; Resps. Br. at 81-82.

Rovi’s opening argument for this term follows:

One of ordinary skill in the art would agree with Rovi’s proposed construction—“any equipment capable of use by a user to display program listings and to record television programs.” CX-0002C (Shamos WS) at Q/A 112. The specifications make clear that “user television equipment” is a broad term. *Id.*; JX-0002 (’263 Patent) at col. 6, ln. 64

- col. 7, ln. 1. Further, Figs. 3 and 4 of the '263 Patent show the user television equipment as including a television 36, remote control 40, secondary storage device 32, set-top box 28, digital storage device 31, user interface 46, digital storage device 49, secondary storage device 47, communications device 51 and display device 45. JX-0002 ('263 Patent) at Figs. 3-4. In the Patents, the recited purpose of the "user television equipment" is to display program listing and record television programs. CX-0002C (Shamos WS) at Q/A 112. What records television programs thus falls within the scope of "television equipment." CX-1901C (Shamos RWS) at Q/A 37 (discussing additional intrinsic evidence in support of Rovi's construction).

Rovi Br. at 49.

Comcast's argument for this term follows:

The party's [*sic*] proposed construction [*sic*] of "user television equipment" are provided in RDX-0842. Comcast's proposed construction is consistent with the plain and ordinary meaning of this limitation to one of ordinary skill in the art in light of the intrinsic evidence. RX-0007C at Q/A 174.

There are two problems with Rovi's construction. First, it is overbroad because it would read the word "television" out of the claims. For

example, Rovi's construction would cover a personal computer, which is capable of being configured to display program listings and record television programs but is inarguably not a "television" as a POSITA would understand. RX-0007C at Q/A 175. Second, Rovi's construction leads to the absurd result that the agreed construction for "user site" would no longer be limited to the site of the user when Rovi's construction of "user television equipment" is combined with the other agreed constructions. Because "user television equipment" would no longer be limited to a television in Rovi's construction, the equipment would not need to be in the user's home. But the parties have agreed that "user site" means "location of the user equipment" and that "user equipment" means "user television equipment." Thus, "user site" means "location of the [user television equipment]." Under Rovi's overbroad construction of "user television equipment" this would mean that "user site" is no longer limited to a fixed point, like the user's home. This would render the "user site" limitation meaningless. This problem is averted by adopting Comcast's construction which would lead to a "user site" construction of "location of the television equipment associated with the user." This construction makes sense and is consistent with the plain and ordinary meaning.

Rovi criticizes Comcast's construction by arguing that "associated with a user" is unclear. *See* CX-0002C (Shamos WS) at Q/A 113. Dr. Shamos's hypothetical where a television could potentially be associated with users A, B, and C does not present a problem. It would not be difficult for a POSITA to determine that the television equipment is associated with a single subscriber whether or not it is available to multiple individuals within that household. *See* RX-0007C at Q/A 179.

Resps. Br. at 81-82.

Rovi replies:

Respondents misrepresent the scope of the inventions and the specifications, stating: "Rovi's construction [of user television equipment] would cover a personal computer, which is capable of being configured to display program listings and record television programs but is inarguably not a 'television' as a POSITA would understood [*sic*]." Resps. Br. at 81. The specifications of the Asserted Patents *explicitly* state that "user television equipment" includes a personal computer: "[o]ther suitable types of user television equipment may be based on personal computer televisions (PC/TVs). . ." JX-0003 ('801 Patent) at 4:17-20, 11:59-62, 31:61-65. Thus, Respondents' argument is unpersuasive.

Rovi Reply at 32.

The administrative law judge construes the term “user television equipment” to mean “equipment for displaying television program listings information and other program guide data using a local interactive television program guide.” *See* JX-0002 at 7:61-64 (“Each user has user television equipment 22 for displaying the television program listings information and other program guide data using a local interactive television program guide.”). Further, this construction is consistent with the specification, and it also allows for other uses such as the display of programming (*e.g.*, watching television shows).

Rovi’s construction is overly broad to the extent it seeks to encompass “any equipment.” Conversely, Rovi’s construction is overly narrow to the extent it requires the user television equipment “to record.” While the preamble of claim 1 indicates that the claimed system is “for recording,” the body of the claim indicates that “the local interactive television program guide . . . records the television program . . . using the local interactive television program guide equipment.” *See* JX-0002 at 28:59-63.

(7) Generates[/ing] . . . a display

Claim 1 of the ’263 Patent utilizes the term “generates a display” twice. *See* JX-0002 at 28:35, 28:44 (“Generates a display” only appears in claims 5, 8, 11, 14, and 17. It does not appear in the specification). The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
Generates[/ing] data representing a display	Comcast does not clearly present a construction in its post-hearing brief.

Rovi Br. at 49; Resps. Br. at 82-83.

Rovi's opening argument for this phrase follows:

One of ordinary skill in the art would agree with Rovi's construction—"generates[/ing] data representing a display." CX-0002C (Shamos WS) at Q/A 114. This straightforward construction explains what generating a display means and is consistent with the disclosure in the specifications. *See* JX-0002 ('263 Patent) at col. 6, lns. 1-8, col. 9, lns. 15-19, col. 14, lns. 2-19, col. 20, lns. 1-5.

Respondents' proposed construction requires that what does the "generating" also "create[s] data sufficient to provide a display" and "provide[s] that data to a display device." Resps. P.H. Br. at 199-200. As with the "local interactive television program guide" term, this is another attempt by Respondents to limit the local guide to equipment within the user's home that must—under Respondents' construction—"create data sufficient to provide a display" and "provide that data to a display device." If something other than the television

equipment in the user's home "creates the data," then, under Respondents' construction, that would be excluded from the scope of the claims. However, and as discussed previously, the specifications contemplate a client-server based program guide where the program guide server generates program guide display screens as digital frames and distributes the frames to user television equipment 22 of Figure 2d. JX-0003 ('801 Patent) at col. 8, ln. 52 - col. 9, ln. 60, col. 10, lns. 2-9, col. 40, lns. 6-30, col. 41, lns. 6-32, Fid. 2d. As Dr. Wigdor testified at the hearing, this embodiment would be excluded under Respondents' construction. Wigdor Tr. 895. In a cable system, consistent with the disclosed embodiments, the user television equipment (inside the home) works with portions of the cable network outside the home to receive data needed to generate a display on the user's television equipment. CX-0002C (Shamos WS) at Q/A 115 (discussing other intrinsic evidence supporting Rovi's construction).

Rovi Br. at 49-50.

Comcast's opening argument for this phrase follows:

The party's *[sic]* proposed construction *[sic]* of "generates[/ing] . . . a display" are provided in RDX-0843. Comcast's construction is supported by the specification, which recognizes a difference between the generating of a

display screen and the displaying of that screen to the user. For example, the patents describe an embodiment where the local guide receives communications from a remote device, generates “the appropriate program guide display screen,” and “send[s] the program guide display screen back” to the remote device “for display on [a] user interface.” JX-0002 (’263 Patent) at 14:11-19. Thus the specifications show that there is a distinction between generating the display screen and displaying it.

Rovi mischaracterizes Comcast’s proposed construction as requiring that “the element that generates the display must talk directly to the display device.” CX-0002C (Shamos WS) at Q/A 115. Under Comcast’s construction, the same element could both generate and display or one element could generate the display screen and *indirectly* pass it to the display device. Either scenario would be included in Comcast’s construction.

Dr. Shamos constructs a hypothetical involving a browser rendering an HTML file and incorrectly suggests that the browser “generates” the display by rendering the HTML file. This hypothetical demonstrates a misunderstanding of Comcast’s proposed construction. *Rendering* an HTML file, or similar types of data, is not *generating* a display. On the contrary, creating the HTML file and passing it to a browser is

“generating” a display because it “creates data sufficient to provide a display [the HTML file] and provides that data to a display device [browser] to create [render] the display.” RX-0007C (Wigdor WS) at Q/A 186.

Resps. Br. at 82-83.

Comcast replies:

There is nothing to add over Respondents post-hearing brief (Resp. PoHB at 81-82) other than to note Rovi offers no criticisms of Respondents’ construction. *See* Compl. PoHB at 49.

Resps. Reply at 19.

The administrative law judge construes the term “generates a display” to mean “creates a display.”⁸⁰

Rovi’s construction simply adds the words “data representing” without any substantive development of the concept; Rovi does not explain why “data

⁸⁰ According to Rovi, this construction is superfluous because the parties do not dispute that the X1 system generates a display under either party’s construction. *See* Rovi Reply at 35, which argues:

Based on Respondents’ admission, the parties agree that the X1 system generates a display of one or more program listings as required by the Asserted Claims under Rovi’s construction or under Respondents’ construction without the “in the user’s home” requirement. *See* Compls. Br. at 43-46 (discussing the construction of local interactive television program guide) and 66-70 (discussing infringement by the X1 system, of the Asserted Claims). Thus, the only dispute between the parties is whether the X1 system contains a local guide.

representing” is a necessary addition or why “data” is not otherwise inherent in the plain language itself.

(8) Wherein the display of the plurality of program listings is generated based on a user profile stored at a location remote from the remote program guide access device

This phrase appears in claims 1 and 5 of the '263 Patent. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
No further construction necessary, plain and ordinary meaning.	Comcast does not clearly present a construction in its post-hearing brief.

Rovi Br. at 51-52; Resps. Br. at 78.

Rovi argues:

One of ordinary skill in the art would agree with Rovi's proposed construction—"No further construction necessary, plain and ordinary meaning." CX-0002C (Shamos WS) at Q/A 116, 119. The meaning of the "wherein" clauses is clear from the text of the claim limitations themselves. The parties agree that the display must be based on a user profile stored somewhere other than on the remote program guide access device. Indeed, the claim language states "a user profile stored at a location remote from the remote interactive television

program guide access device.” JX-0002 (’263 Patent) at col. 31, lns. 1-31. In the face of the plain meaning of this term, Respondents’ proposed construction adds the unsupported additional requirement that the user profile be “stored, *and used*, other than on the remote interactive television program guide access device.” Resps. P.H. Br. at 192-96 (emphasis added).

Respondents’ construction is expressly contradicted by the specifications, for example, JX-0002 (’263 Patent) at col. 17, lns. 4-18. Respondents’ expert, Dr. Wigdor, admits he is improperly reading in a “use” limitation from one of the disclosed embodiments. RX-0007C (Wigdor WS) at Q/A 161. Within the scope of the asserted claims, the user profile information could be stored on a server (*i.e.*, not on the remote access device), transmitted to the device over the Internet, and then used on the device to generate display of the remote interactive television program guide. CX-0002C (Shamos WS) at Q/A 116-18 (explaining additional intrinsic evidence in support of Rovi’s construction); Shamos Tr. 250-54 (same).

Rovi Br. at 51-52. Rovi then provides examples of “user profile” information in a footnote. *Id.* at 52 n.9.

Comcast argues that its “constructions are consistent with the intrinsic evidence. The only specification disclosure of generating a display for a

remote device using a user profile, discloses that the profile is stored and used somewhere other than the remote device in order to reduce the amount of data that needs to be sent to the remote device.” Resps. Br. at 78. Comcast cites three lines of the specification, a complaint from a different lawsuit, inventor testimony, and expert testimony that dovetails with Comcast’s argument. *Id.* The specification text that Comcast cites explains:

User preference profiles may also be used to limit the amount of data provided to remote program guide access device 24 and **thereby tend to minimize the bandwidth requirements of remote access link 19.**

Id. (citing JX-0002 at 17:37-40 (emphasis added by Comcast)).

The administrative law judge has determined that it is not necessary to construe this phrase. The meaning of the phrase is clear and self-explanatory, and the parties agree that the display must be based on a user profile stored somewhere other than on the remote program guide access device.

(9) Wherein the remote interactive television program guide access device generates a display of a plurality of program listings based on a user profile stored at a location remote from the remote interactive television program guide access device

This phrase appears in claims 14 and 17 of the ’263 Patent. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
No further construction necessary, plain and ordinary meaning.	Comcast does not clearly present a construction in its post-hearing brief.

Rovi Br. at 51-52; Resps. Br. at 78.

The parties do not present independent argument with relation to this phrase. Rather, the parties present argument for this phrase along with the “wherein the display of the plurality of program listings is generated based on a user profile stored at a location remote from the remote program guide access device” phrase discussed above. Accordingly, the administrative law judge has determined that it is not necessary to construe this phrase for the reasons provided in the above subsection.

(10) Recording by [a/the] local interactive television program guide

The phrases “recording by a local interactive television program guide” and “recording by the local interactive television program guide” appear in claims 1, 5, 8, and 11 of the '263 Patent. JX-0002 at 28:52-53; 29:26-27; 30:4-5; 30:42-43. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
recording by the local interactive television program guide equipment on which the local interactive television	Comcast does not clearly present a construction in its post-hearing brief.

program guide is implemented	
------------------------------	--

See Rovi Br. at 52; Resps. Br. at 79-80.

Rovi argues:

One of ordinary skill in the art would agree with Rovi's proposed construction—"recording by the local interactive television program guide equipment on which the local interactive television program guide is implemented." CX-0002C (Shamos WS) at Q/A 121, 123. As discussed above at Sections V(C)(2)(b)-(d), there is no geographic limitation regarding the local guide. Rovi's construction for this term is consistent with its use in the specifications of the Patents. *See* JX-0002 ('263 Patent) at col. 11, lns. 4-44, col. 12, lns. 10-13, col. 17, lns. 48-50, col. 24, lns. 36-39.

As with the "local" interactive television program guide term, Respondents' proposed construction again imposes a geographical limitation by limiting the recording to being "initiated" by the local interactive program guide (which in turn, according to Respondents, must be located solely inside a user's home). Resps. P.H. Br. at 196-98. The word "initiates" does not appear anywhere in the intrinsic record of the Patents. Moreover, there is no requirement that

the equipment within the users' home initiate the recording as Respondents' construction would require. Within the claims, it is: (a) the user of the remote guide who requests a recording; (b) the remote guide which communicates the recording request to the local guide; and (c) the local guide which records the television program. *See* CX-0002C (Shamos WS) at Q/A 122 (explaining additional intrinsic evidence in support of Rovi's construction). Respondents are improperly attempting to introduce causal and geographical limitations into the claims.

Rovi Br. at 53-54.

Comcast's argument, which is comingled with five other disputed phrases, follows:

Comcast's proposed constructions are consistent with the intrinsic evidence. In every embodiment disclosed in the patent specification, it is the guide software that initiates the recording. *See, e.g.*, JX-0002 ('263 Patent) at 12:19-22, 17:54-59, 24:36-39, and 24:44-51. This repeated aspect of the specification is recognized in Comcast's proposed constructions.

Rovi takes issue with the word "initiates" in Comcast's constructions and argues that the *remote guide* could also be said to "initiate" a recording when it remotely requests a recording. *See, e.g.*, CX-0002C (Shamos WS) at Q/A 122. While it is true

that the remote guide communicates a scheduling request, in every embodiment in the patent it is the *local guide* which receives this request from the remote guide and it is the *local guide* that actually initiates the recording. *See, e.g.*, JX-0002 at 12:19-22, 17:54-59, 24:36-39, and 24:44-51.

Rovi's constructions, on the other hand, do nothing more than rearrange the words of the limitation and, therefore, do not explain their meaning. Further, for the "recording by [a/the] local interactive television program guide," limitation Rovi inserts the concept of the local guide *equipment* to a limitation that otherwise did not contain it. By inserting the local guide equipment into this construction, Rovi excludes an embodiment described in the specification where the local guide records a program on a program guide server. *See id.* at 24:44-51.

Furthermore, by changing the claim term to only require that equipment perform the recording, Rovi would remove the local guide entirely from the process of recording. In other words, under Rovi's construction, the *local guide* need not be involved at all in the recording, only the *equipment* on which the local guide is implemented. This changes the meaning of the claim term.

Resps. Br. at 79-81.⁸¹

The administrative law judge has determined that the phrase “recording by a local interactive television program guide” does not need construction.

The disputed phrase is a portion of a “wherein” clause that modifies “the remote access interactive television program guide.” The relevant claim language follows:

[the remote access interactive television program guide] . . . receives a selection of a program listing of the plurality of program listings in the display, wherein the selection identifies a television program corresponding to the selected program listing for ***recording by the local interactive television program guide***].

JX-0002 at 28:42-53 (emphasis added on disputed phrase). In general terms, the claim then provides that the selection is transmitted to the local interactive

⁸¹ The six terms to which this argument applies are: “(1) ‘recording by [a / the] local interactive television program guide,’ (2) ‘records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment,’ (3) ‘records the television program corresponding to the selected television program listing using the local interactive television program guide equipment,’ (4) ‘recording by the local guide,’ (5) ‘responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment,’ and (6) ‘responsive to the communication, schedules the program corresponding to the selected program listing for recording at the appropriate time using the television equipment’ [which] are provided in RDX-0839 to RDX-0841.”).

television program guide and that the local interactive television program guide records the selected program. *See* JX-0002 at 28:54-58 (*inter alia*, transmitting) and 28:59-63 (*inter alia*, recording). Within this context, the claim denotes that the system “recording” occurs after the system “receives a selection of a program listing[.]” *Id.* at 28:49.

In using the present tense “records,” Rovi’s proposed construction upsets the system’s ordered logic. Further, Rovi’s proposed construction introduces a “using” requirement that already appears at the end of claim 1. *See* JX-0002 at 28:59-63 (“the local interactive television program guide receives the communication and records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment.”).

Comcast’s arguments about the construction also upset the system’s ordered logic insofar as the argument requires the local interactive program guide to initiate a recording before it has even received the communication identifying the selected program. *See* JX-0002 at 28:54-58 (transmitting). Furthermore, the word “initiates” does not appear in the ’263 Patent. *See generally* JX-0002; CX-0002C at Q/A 127. While it makes sense that the recording does not initiate on its own, there is no reason to construe the disputed phrase to require initiation.

(11) *Records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment*

The phrase “records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment” appears only in claims 1 and 14 of the ’263 Patent.⁸² JX-0002 at 28:60-63; 31:28-31 (The phrase “the television program corresponding to the selected program listing” appears in claims 1-3 and 5-17.). The parties propose the following construction:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
records the television program corresponding to the selected program listing identified in the communication using the local interactive television program guide equipment	Comcast does not clearly present a construction in its post-hearing brief.

The parties brief this phrase along with the phrases “recording by [a/the] local interactive television program guide” and “recording by the local guide.” *See* Rovi Br. at 53-54 (Section V(C)(2)(h)); Resps. Br. at 79-81 (Section VIII.B.3.c).

The administrative law judge construes the phrase “records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment” to mean “records the television program corresponding to the selected

⁸² Rovi’s Brief indicates that this phrase appears in claims 1 and 10 of the ’413 Patent.

program listing identified in the communication using the local interactive television program guide equipment.”

Apart from replacing “responsive to” with “identified in,” Rovi’s proposed construction simply repeats the claim language. The construction is consistent with other terminology used in the claim and clarifies any ambiguity (if any existed) that attached to the words “responsive to.”

Comcast’s proposed construction, which largely reorders words in the phrase, introduces an “initiation” requirement. As noted above, the word “initiates” does not appear in the ’263 Patent. While it makes sense that the recording does not initiate on its own, there is no reason to construe the disputed phrase to require initiation.

(12) Communication

This term appears in the ’263 Patent (claims 1, 14, and 17), the ’801 Patent (claims 1, 5, and 10), and the ’413 Patent (claims 1 and 10). The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
No further construction necessary, plain and ordinary meaning which is “message”	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 54-55; Resps. Br. at 83-84 (citing RDX-0844).

Rovi’s argument follows:

The parties agree that the plain and ordinary meaning of this term applies. Resps. P.H. Br. at 200. However, the parties apparently dispute the application of the plain meaning of this claim term—Respondents’ expert, Dr. Wigdor, asserts that the plain meaning of “communication” additionally requires that the format and content of the communication to be identical from start to finish. Wigdor Tr. 906 (testifying that “it is a necessary but not sufficient condition” that the “format of the communication ha[s] to stay the same from the time that communication is transmitted to the time that communication is received.”). There is no such additional requirement. Dr. Wigdor’s application of the term is inconsistent with the plain meaning and excludes the very activity disclosed in the specifications of the Patents, which includes passing on a communication from one device (such as a remote access device) to another device (such as the local guide or television equipment) wherein the communication contains information “identifying the television program corresponding to the selected program listing.” JX-0002 (’263 Patent) at col. 17, lns. 48-62, col. 28, lns. 27-64; CX-0002C (Shamos WS) at Q/A 125. Indeed, under Dr. Wigdor’s alleged plain meaning, an email would not be a “communication” because an email

“communication” goes through many formats (and arguably) content changes as it traverses the Internet. Wigdor Tr. 905-12.

Rovi Br. at 54-55.

Comcast’s argument follows:

The party’s [*sic*] proposed construction [*sic*] of “communication” are provided in RDX-0844. Both parties say that no construction is necessary, yet Rovi tries to backdoor a construction of “message.” This construction is improper because “communication” does not mean “message” to a POSITA and Rovi has not identified any portion of the intrinsic evidence that would support this construction.

Dr. Shamos’s analogy of relaying a message to his spouse through his daughter (see CX-0002C at Q/A 125) is a good example of why Rovi’s construction is wrong. While the meaning of his “message” might be ultimately received by his spouse, the “communication” from Dr. Shamos to his daughter is clearly different from the “communication” from his daughter to his spouse. RX-0007C (Wigdor WS) at Q/A 191.

Comcast’s construction is also confirmed by the plain language of the claims themselves. In the claims, the “communication” that is sent by the remote guide must be the same

communication received by the local guide because the first time “communication” is used in the claims it is referred to as “*a* communication,” and any subsequent times it is used in the same claim, it is referred to as “*the* communication” meaning that “*the* communication” takes its antecedent basis from “*a* communication,” which means both “communications” are exactly the same. *Id.* at Q/A 192; Tr. 225:4-8 (Dr. Shamos admitting same). For example, ’801 claim 1 recites “transmitting, with the remote guide, *a* communication to the local guide” and “receiving *the* communication with the local guide.” Similar recitations are found in every asserted independent claim of all three patents.

Resps. Br. at 83-84.

The administrative law judge construes “communication” to mean “message.”

The claims and specification generally use the term “communication” in an ordinary manner. *See* JX-0002 at 10: 41-43 (“Remote program guide access device 24 may communicate with interactive television program guide equipment 17 using any suitable scheme.”). While specific examples of communication protocols are provided, *see* JX-0002 at 10:29-40, the specification typically uses generalized “communication” terms:

- FIGS. 6a, 6b, and 6c are schematic block diagrams of illustrative arrangements ***for supporting communications*** between a remote program guide access device and

interactive television program guide equipment over an Internet link in accordance with the principles of the present invention. *See* JX-0002 at 4:60-64 (emphasis added).

- ***Requests, commands, or other suitable communications*** may be provided by remote program guide access device 24 to user television equipment 22 and then forwarded by user television equipment 22 to program guide server 25. *See* JX-0002 at 6:18-22 (emphasis added).
- As shown in FIGS. 1 and 2a-2d, interactive television program guide equipment 17 communicates with remote program guide access device 24 via remote access link 19. In practice, remote program guide access device 24 may be connected to user television equipment (as shown in FIGS. 2a and 2c), television distribution facility 16 (as shown in FIG. 2b), connected to both (as indicated in FIG. 1), or may communicate with remote program guide server 25 (as shown in FIG. 2d) via remote access link 19. Remote access link 19 may be ***any suitable wired or wireless communications path*** or paths over which ***digital or analog communications*** may take place between interactive television program guide equipment 17 and remote program guide access device 24. *See* JX-0002 at 6:48-60 (emphasis added).
- In still another approach, user interface 52 may include an alphanumeric pager (among other suitable devices for providing ***bi-directional communications*** with the program guide via

remote access link 19). *See* JX-0002 at 16:11-14 (emphasis added).

- Access communicators may include ***any client-server or peer-to-peer communication*** construct suitable for providing program guide information across remote access link 19. ***Access communications may include***, for example, requests, commands, messages, or remote procedure calls, as indicated by substeps 1204, 1205, 1206, and 1207, respectively. *See* JX-0002 at 22:15-21 (emphasis added).

Comcast's argument about the proposed construction adds an exact-identity requirement that is not supported by the claim language or the specification. The claims, however, are not written with the level of detail that appears in Comcast's argument.

3. Represented Products

Rovi argues:

Each of the Accused Products falls into one of two groups: (a) the "Legacy Guide Accused Products" and (b) the "X1 Accused Products." All of the products in each group are "representative" of that group with respect to the Asserted Claims. CX-0002C (Shamos WS) at Q/A 28. Based on this, the AX013ANC is representative of all Comcast X1 products and the DCX35001M is representative of all Comcast Legacy products. *Id.* . . .

Rovi Br. at 57. Rovi relies upon Dr. Shamos's testimony and Comcast, ARRIS, and Technicolor technical documents to show how the X1 and Legacy

systems operate in the same manner in terms of infringement with respect to the '263, '413 and '801 Patents. *See id.* (citing at CX-0002C (Shamos WS) at Q/A 167-69). Rovi argues that Comcast's expert, Dr. Wigdor, relied on the same documents in describing how the products operate and that Dr. Wigdor "did not distinguish amongst DVR, non-DVR, or 'cloud' sub-categories" of the accused products. *Id.* At 57-58. Rovi then argues that Dr. Wigdor's testimony confirms that the analysis for the X1 and Legacy systems does not change based on components within a set-top box having a particular model number. *Id.* at 58-59 ("... for every asserted claim, some of the infringing functionality may be on the set-top box, and some of the functionality may be on a different set-top box with a DVR or on a server within Comcast's "cloud." CX-0002C (Shamos WS) at Q/A 149-52; CX-1901C (Shamos RWS) at Q/A 25-29."). Rovi then argues:

Comcast's corporate witnesses testified repeatedly that the recording functionality of the X1 system does not change based on RF front end, SoC, manufacturer, cloud DVR, non-DVR, etc. Peter Nush, John McCann, Stephen Allinson, John Robinson, and Sean Brown testified that there is no difference in functionality in the X1 system or the STBs based on RF front end, SoC, manufacturer, cloud DVR, non-DVR, etc. McCann Tr. 759-60 (testifying that the [] source code does not change based on model or vendor of a set-top box and all X1 devices connect to the same pool of [] JX-0109C (Nush Dep. Tr.) 130; JX-0105C (McCann Dep.

Tr.) 87-88, 121; JX-0086C (Allinson Dep. Tr.) 23, 44, 78, 84-85, 93-96, 133-134; JX-0113C (Robinson Dep. Tr.) 91-98; JX-0090C (Brown Dep. Tr.) 65-68; JX-0097C (Garcia Dep. Tr.) 146-147; JX-0093C (Day Dep. Tr.) 40-41, 70, 91, 101-102, 149, 150; JX-0092C (Davis Dep. Tr.) 172.

Id. at 59-60.

Comcast's argument is:

The STBs that Rovi accuses patents are listed in JX-0084C.000014-15. Comcast's proposed representative products are set forth in the charts below. *See* RX-0870C.0007-8[:]

[illegible]

Comcast has divided up the products up by whether they have DVR functionality and whether that DVR functionality is local or cloud-only because all of the asserted claims have elements requiring either scheduling a recording or actually performing the recording. Neither limitation would be met by a system that

does not have DVR functionality. RX-0850C (Wigdor RWS) at Q/A 22-23. Rovi's proposal to group all of these products together, whether or not the products include DVR functionality, is unreasonable. *Id.*

Additional Legacy STBs have been classified by Comcast as "end of life" and "proactive swap." Rovi has failed to demonstrate why their proposed representative products are representative for these products. *See* JX-0084C.000016-19.

Resps. Br. at 69.

Rovi replies that it has met its burden and that

Rovi's expert, Respondents' experts, Comcast's engineers, Comcast's corporate representatives, Comcast's technical documents, and Comcast's source code all indicate that the remote recording functionality accused of infringement is performed in substantially the same way across all of the X1 and Legacy Accused Products regardless of model number and irrespective of any immaterial difference in hardware among the Accused Products" and that Dr. Wigdor "grouped each of his non-infringement assertions by Accused Product group—either X1 or Legacy."

Rovi Reply at 22-23.

The administrative law judge has determined that the products Rovi identified, the ARRIS XG1 v3 (X1) AX013ANC for all Comcast X1 products, and the Motorola DCX3501/M for all Comcast Legacy products, are representative products for purposes of the '263, '801, and '413 Patents. Rovi's allegations are supported by evidence, and Comcast has not sufficiently pointed to differences between the product groups it has identified.

4. Literal Infringement

Rovi asserts claims 1, 2, 14, and 17 of the '263 Patent against the X1 and Legacy systems. *See* Rovi Br. at 42, 60-87. Rovi argues that Comcast "directly infringes based on its testing and use of the Accused Products within the United States after importation." Rovi Br. at 60. Comcast's post-hearing brief contends that it does not infringe any of the asserted claims. *See* Resps. Br., Section VIII(C)(2).

a) Claim 1

Rovi divides its analysis for claim 1 in seven alphanumeric limitations (1pre, 1a, 1b, 1c, 1d, 1e, and 1f). *See* Rovi Br., Section V(E)(1). The subparts are presented, as follows:

[1pre] 1. A system for selecting television programs over a remote access link comprising an Internet communications path for recording, comprising:

[1a] a local interactive television program guide equipment on which a local interactive television program guide is implemented, wherein the local interactive television program guide equipment includes user television

equipment located within a user's home and the local interactive television program guide generates a display of one or more program listings for display on a display device at the user's home; and

[1b] a remote program guide access device located outside of the user's home on which a remote access interactive television program guide is implemented, wherein the remote program guide access device is a mobile device, and wherein the remote access interactive television program guide:

[1c] generates a display of a plurality of program listings for display on the remote program guide access device, wherein the display of the plurality of program listings is generated based on a user profile stored at a location remote from the remote program guide access device;

[1d] receives a selection of a program listing of the plurality of program listings in the display, wherein the selection identifies a television program corresponding to the selected program listing for recording by the local interactive television program guide; and

[1e] transmits a communication identifying the television program corresponding to the selected program listing from the remote access interactive television program guide to the local

interactive television program guide over the Internet communications path;

[1f] wherein the local interactive television program guide receives the communication and records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment.

JX-0002 at 28:27-63; *see also* RX-0007C (Wigdor) at Q/A104. Each subpart is addressed below.

(1) Limitation 1pre

The text for this limitation is: “A system for selecting television programs over a remote access link comprising an Internet communications path for recording, comprising[.]” *See* Rovi Br. at 62.

(a) X1 System

Rovi argues that the “Comcast X1 local guide, with a Comcast Xfinity AX013ANC set-top box (or PX011ANM set-top box), and Comcast Xfinity App (including the TV App and the TV Remote App), running on a mobile device, meet this element.” *Id.* at 62-63 (citing CX-0002C (Shamos WS) at Q/A 218); Tr. (Wigdor) 863-864 (stating that CX-1570 at 1 is a guide on the screen); CX-1570 (X1 Screenshots for the ’263, ’413, and ’801 Patents); CX-1558 (Mobile Device TV Remote App Screenshot) (many additional exhibits are also cited)). Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1pre also show that the following claim elements

are met by the X1 system: '263 claim elements 14pre, 17pre; '413 claim elements 1pre, 10pre; and '801 claim elements 1pre, 5pre, 10pre, 10a, 10c, 15pre, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 242, 254, 263, 284, 299, 312, 326, 330, 340, 342, 346.

Rovi Br. at 65.

Comcast does not squarely address the preamble in its post-hearing brief. *See generally* Resps. Br. at 86-103.

Accordingly, the administrative law judge has determined that the record evidence demonstrates that the accused X1 products satisfy this limitation.

(b) Legacy System

Rovi argues that “Comcast Legacy local guide with a Comcast Xfinity DCX3501M (also referred to as the ARRIS MOTRNG200BNMR) set-top box, and Comcast Xfinity TV Remote App, running on a mobile device, meet this element.” Rovi Br. at 65-66 (citing CX-0002C (Shamos WS) at Q/A 219; CX-1781 (Legacy Guide Screenshots for the '801 Patent); CX-1558 (Mobile Device TV Remote App Screenshot) (many additional exhibits are also cited)). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1pre also

show that the following claim elements are met by the Legacy system: '263 claim elements 14pre, 17pre; '413 claim elements 1pre, 10pre; and '801 claim elements 1pre, 1a, 5pre, 5a, 10pre, 10a, 10c, 15pre, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the '413 Patent); CX-1602 (Legacy Guide Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 242, 255, 263, 284, 299, 302, 312, 314, 324, 326, 330, 340, 342, 346.

Rovi Br. at 66.

Comcast does not squarely address the preamble in its post-hearing brief. *See generally* Resps. Br. at 103-104.

Accordingly, the administrative law judge has determined that the record evidence demonstrates that the accused Legacy products satisfy this limitation.

(2) Limitation 1a

The text for this limitation is: “a local interactive television program guide equipment on which a local interactive television program guide is implemented, wherein the local interactive television program guide equipment includes user television equipment located within a user’s home and the local interactive television program guide generates a display of one or more program listings for display on a display device at the user’s home[.]” *See* Rovi Br. at 66.

(a) X1 System

Rovi argues that the “Comcast Xfinity AX013ANC set-top box (or PX011ANM set-top box) running Comcast X1 local guide meets this element.” Rovi Br. at 66 (citing CX-0002C (Shamos WS) at Q/A 221, 358-60). Rovi further contends that the “Accused Products satisfy this element under both parties’ proposed constructions” and that the servers that support the local guide are part of the local guide equipment. *See id.* at 66-67 (citing CX-0002C (Shamos WS) at Q/A 121, 363; Tr. (Shamos) 246-248). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1a also show that the following claim elements are met by -the X1 system: '263 claim elements 14a, 14b, 14c, 17a; '413 claim elements 1a, 10a; and '801 claim elements 1a, 1b, 5a, 5b, 10a, 10b, 10c, 10d, 15a, 15, b, 15c, 15d. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 244, 246, 250, 257,. 265, 286, 301, 304, 314, 316, 328, 330, 332, 341, 343, 345, 348.

Rovi Br. at 69-70.

Comcast argues that “Comcast’s X1 platform does not infringe any asserted claim because the X1 does not have a ‘local guide’ that generates a display of one or more program listings.” Resps. Br. at 87-92 (citing RX-0850C (Wigdor RWS) at Q/A 133, which identifies

“local guide” limitations in the asserted claims). Comcast argues that it does not infringe “for two reasons. First there is no ‘local guide’ in the X1 platform under Comcast’s correct construction or a reasonable view of Rovi’s construction. . . . Second, even if a ‘local guide’ is presumed to exist on the STB, nothing on the STB can be found to ‘generate a display of one or more program listings’ in the X1 platform.” *Id.* at 88 (citation to RX-0850C (Wigdor RWS) at Q/A 138 omitted).

The evidence of record shows that the accused X1 products satisfy this limitation. Dr. Shamos testified that the AX013ANC set top box, running a Comcast X1 local guide, generates a display of TV program listings for display on a TV in the home. *See* CX-0002C (Shamos WS) at Q/A 221, 358-60.

(b) Legacy System

Rovi argues that the “Comcast Xfinity DCX3501M set-top box running Comcast Legacy local guide meets this element.” Rovi Br. at 70 (citing CX-0002C (Shamos WS) at Q/A 222). Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1a also show that the following claim elements are met by the Legacy system: ’263 claim elements 14a, 14b, 14c, 17a; ’413 claim elements 1a, 10a; and ’801 claim elements 1a, 1b, 5a, 5b, 10a, 10b, 10c, 10d, 15a, 15b, 15c, 15d. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the ’413 Patent); CX-

1602 (Legacy Guide Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 245, 248, 250, 257, 265, 286, 302, 304, 314, 316, 326, 328, 330, 332, 342, 344, 346, 348.

Rovi Br. at 70.

Comcast does not argue that the accused Legacy products do not satisfy this limitation. *See generally* Resps. Br., Section VIII(C)(2)(b) (this limitation is not addressed).

The evidence of record shows that the accused Legacy products satisfy this limitation. Dr. Shamos testified that the DCX3501M set top box, running a Comcast Legacy local guide, generates a display of TV program listings for display on a TV in the home generates a display of TV program listings for display on a TV in the home. *See* CX-0002C (Shamos WS) at Q/A 221, 358-60.

(3) Limitation 1b

The text for this limitation is: “a remote program guide access device located outside of the user’s home on which a remote access interactive television program guide is implemented, wherein the remote program guide access device is a mobile device, and wherein the remote access interactive television program guide[.]” *See* Rovi Br. at 71.

(a) X1 System

Rovi argues that a “mobile device such as an iPhone or iPad running a Comcast Xfinity App, including the Xfinity TV APP or Xfinity TV Remote App, meets this element.” Rovi Br. at 71 (citing CX-0002C (Shamos WS) at Q/A 224). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1b also show that the following claim elements are met by the X1 system: '263 claim elements 14c, 17b; '413 claim elements 1a, 10a, 10b; and '801 claim elements 1a, 5a, 10a, 10c, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 265, 286, 288, 301, 326, 330, 342, 346.

Rovi Br. at 71.

Comcast does not dispute that the X1 system meets this limitation. *See generally* Resps. Br., Section VIII(C)(2)(a) (this limitation is not addressed).

The evidence of record shows that the accused X1 products, including the Xfinity TV APP or Xfinity TV Remote App, satisfy this limitation. Dr. Shamos testified that a mobile device running Comcast Xfinity App, including the Xfinity TV APP or Xfinity TV Remote App, constitutes the claimed remote program guide access device located outside of the user's home. *See* CX-0002C (Shamos WS) at Q/A 224.

(b) Legacy System

Rovi argues that a "mobile device running the Comcast Xfinity TV Remote App meets this element." Rovi Br. at 72 (citing CX-0002C (Shamos WS) at Q/A 225). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1b also show the following elements are met by the Legacy system: '263 claim elements 14c, 17b; '413 claim elements 1a, 10a, 10b; and '801 claim elements 1a, 5a, 10a, 10c, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the '413 Patent); CX-1602 (Legacy Guide Screenshots for the '801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 263, 286, 288, 302, 314, 326, 330, 342, 346.

Rovi Br. at 72.

Comcast does not dispute that the Legacy system meets this limitation. *See generally* Resps. Br., Section VIII(C)(2)(b) (this limitation is not addressed).

The evidence of record shows that the accused Legacy products, including the Xfinity TV Remote App, satisfy this limitation. Dr. Shamos testified that a mobile device running Comcast Xfinity TV Remote App constitutes the claimed remote program guide access device located outside of the user's home. *See* CX-0002C (Shamos WS) at Q/A 224.

(4) Limitation 1c

The text for this limitation is: "generates a display of a plurality of program listings for display on the remote program guide access device, wherein the display of the plurality of program listings is generated based on a user profile stored at a location

remote from the remote program guide access device[.]” See Rovi Br. at 72.

(a) X1 System

Rovi argues that the “Comcast Xfinity App, including the TV App and TV Remote App, running on a mobile device, meets this element.” Rovi Br. at 72 (citing CX-0002C (Shamos WS) at Q/A 227). Rovi argues that the favorite channels, recording schedule indicators (*i.e.*, the red dot used to denote a recording has been scheduled), premium channel purchases, and parental controls form the foundation of a user profile. See *id.* at 72-74. Rovi then points to Comcast’s engineer’s testimony to show that the user profile is “stored at a location remote from the remote program guide access device,” (*e.g.*, in the cloud). *Id.* at 75 (citing, *inter alia*, JX-0090C (Brown Dep. Tr.) 81; CX-1697 (Xfinity DVR Cloud Video)). Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1b [*sic*, 1c] also show that the following claim elements are met by the X1 system: ’263 claim elements 14c, 17b; ’413 claim elements 1b, 1c, 3, 5, 9, 10b, 10c, 10d, 14, 18; and ’801 claim elements 1a, 5a, 10a, 10c, 10d, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the ’413 Patent); CX-1636, 1641 (X1 Screenshots for the ’801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 267, 269, 275, 278, 281, 288,

290, 293, 295, 297, 301, 314, 324, 330,
332, 342, 346.

Rovi Br. at 76 (Rovi's conclusion for the Legacy products, *see* Rovi Br. at 77, correlates "to '263 claim element 1c" with the same limitations and dependent claims).

Comcast argues that "Comcast's X1 platform does not infringe the limitations of the '263 and '413 patent claims related to the "remote guide" generating a display of program listings based on a user profile stored at a remote location. Resps. Br. at 97 (Section VIII(C)(2)(a)(v)). In particular, Comcast adds, "Rovi's 'favorites' allegation fails because, under either construction, the client applications do not generate a display 'based on a user profile stored at a location remote from the [remote program guide access device/mobile device]" because the "remote application uses a locally stored favorite channel list," not a remotely stored list. *Id.*

The evidence of record shows that the accused X1 products satisfy this limitation. Dr. Shamos testified that a mobile device running a Comcast Xfinity App, including the Xfinity TV APP or Xfinity TV Remote App, generates program listings based on a user profile stored at a location remote from the remote program guide access device. *See* CX-0002C (Shamos WS) at Q/A 227. Indeed, Comcast's engineers testified that [] and Comcast's Xfinity DVR Cloud Video, which instructs the user to sign into the app with a username and password, shows program listings based on user profile information. *See* JX-0090C (Brown Dep. Tr.) 81; CX-1697 (Xfinity DVR Cloud Video) at 0:31-0:44.

(b) Legacy System

Rovi argues that the “Comcast Xfinity TV Remote App running on a mobile device meets this element.” Rovi Br. at 76 (citing CX-0002C (Shamos WS) at Q/A 228). Rovi argues that the analysis tracks the X1 analysis:

Just as in the X1 system, the generated display of program listing information of filtered favorite channels is based on the user’s profile stored at a location remote from the mobile device. JX-0090C (Brown Dep. Tr.) 65-68, 76-77, 80-82, 86-87, JX-0105C (McCann Dep. Tr.) 121-23; CX-1599 (Legacy Guide Screenshots for the ’413 Patent) at 9-12 (showing filtering of listing based on the “Favorites Channels” filter); CX-1602 (Legacy Guide Screenshots for the ’801 Patent) at 6-12 (recording of a program from a listing based on the “Favorites Channels” filter).

Id. at 77. Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1c also show the following elements are met by the Legacy system: ’263 claim elements 14c, 17b; ’413 claim elements 1b, 1c, 3, 5, 9, 10b, 10c, 10d, 14, 18; and ’801 claim elements 1a, 5a, 10a, 10c, 10d, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the ’413 Patent), CX-1602 (Legacy Guide Screenshots for the ’801 Patent); CX-0002C (Shamos

WS) at Q/A 250, 259, 267, 269, 276, 279, 282, 288, 291, 293, 295, 297, 302, 314, 324, 330, 332, 342, 346.

Id.

Comcast's entire argument is:

Comcast's Legacy platform does not infringe any asserted claim of the '263 and '413 patents because the client applications do not generate a display of program listings based on a user profile stored at a remote location. The dispute here is exactly the same as for the X1 platform because the same client applications are used in both platforms. *See* § VIII.C.2.a.v.

Resps. Br. at 103.

The administrative law judge has determined that the accused X1 products meet this limitation. Accordingly, the administrative law judge has determined that the evidence of record shows that the accused Legacy products satisfy this limitation in light of Comcast's acknowledgement that the "dispute here is exactly the same as for the X1 platform the same client applications are used in both platforms." *Id.*

(5) Limitation 1d

The text for this limitation is: "receives a selection of a program listing of the plurality of program listings in the display, wherein the selection identifies a television program corresponding to the selected program listing for recording by the local interactive television program guide[.]" *See* Rovi Br. at 77.

(a) X1 System

Rovi argues that a “Comcast Xfinity TV Remote App running on a mobile device meets this element.” Rovi Br. at 77 (citing CX-0002C (Shamos WS) at Q/A 230). Rovi adds that

... As shown in CX-1633 (X1 Screenshots for the '263 Patent) at 3-6, a user may select “Pit Bulls & Parolees” on the remote guide for recording; the remote guide thereby receiving a selection of a program listing for recording. The red dot on the remote guide (*e.g.*, the user’s recorded program preferences) indicates “Pit Bulls & Parolees” is recording, and the same is observed thereafter at the local guide as shown by CX-1633 (X1 Screenshots for the '263 Patent) at 9-10.
...

Id. at 78. Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1d also show the following claim elements are met by the X1 system: '263 claim elements 14c, 17b; '413 claim elements 1b, 1c, 10c, 10d; and '801 claim elements 1b, 5b, 10b, 10d, 15b, 15d. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 267, 269, 290, 293, 304, 316, 328, 332, 344, 348.

Id.

Comcast argues that its “X1 platform does not infringe any asserted claim because it does not have a local guide ‘recording’ television programs.” Resps. Br. at 95 (Section VIII(C)(2)(a)(iv)). Comcast’s arguments essentially extend from its claim construction and non-infringement positions regarding the word “local.” *Id.* (“As discussed above, the X1 STB does not have a “local guide” because the software that generates and navigates a grid of program listings is resident on [a] server in the cloud.”).

The evidence of record shows that the accused X1 products satisfy this limitation. Dr. Shamos testified that a mobile device running Comcast Xfinity TV Remote App receives a show selection from programs listed in the app, for recording by the local guide. *See* CX-0002C (Shamos WS) at Q/A 230; *see also* CX-1697 (Xfinity DVR Cloud Video).

(b) Legacy System

This is Rovi’s entire argument:

The Comcast Xfinity TV Remote App running on a mobile device meets this element. CX-0002C (Shamos WS) at Q/A 231. The screenshots at CX-1598.1-2 (Legacy Guide Screenshots for the ’263 Patent) show “KPIX 5 News at 5PM” on channel 705 as depicted in both the local and remote guides. As shown by CX-1598 (Legacy Guide Screenshots for the ’263 Patent) at 3-6, a user may select “KPIX 5 News at 5PM” on the remote guide for recording; the remote guide thereby receiving a selection of a program listing for recording. The red dot on the remote guide indicates “KPIX 5 News at 5PM” is

recording, and the same is observed thereafter at the local guide as shown by CX-1598 (Legacy Guide Screenshots for the '263 Patent) at 7-8. The Accused Products satisfy this element under both parties' proposed claim constructions. JX-0105C (McCann Dep. Tr.) 66-67; JX-0090C (Brown Dep. Tr.) 25, 27-28, 71-72; JX-0093C (Day Dep. Tr.) 151-52.

Rovi Br. at 79. Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1d also show the following elements are met by the Legacy system: '263 claim elements 14c, 17b; '413 claim elements 1b, 1c, 10c, 10d; and '801 claim elements 1b, 5b, 10b, 10d, 15b, 15d. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the '413 Patent), CX-1602 (Legacy Guide Screenshots for the '801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 267, 269, 291, 293, 304, 316, 328, 332, 344, 348.

Id.

Comcast does not dispute that the Legacy system meets this limitation. *See generally* Resps. Br., Section VIII(C)(2)(b) (this limitation is not addressed).

The evidence of record shows that the accused Legacy products satisfy this limitation. Dr. Shamos testified that the Comcast Xfinity TV Remote App running on a mobile device receives a show selection

from programs listed in the app, for recording by the local guide. *See* CX-0002C (Shamos WS) at Q/A 231.

(6) Limitation 1e

The text for this limitation is: “transmits a communication identifying the television program corresponding to the selected program listing from the remote access interactive television program guide to the local interactive television program guide over the Internet communications path[.]” *See* Rovi Br. at 80.

(a) X1 System

Rovi argues that the “Comcast Xfinity TV Remote App, running on a mobile device, transmits a communication identifying the television program corresponding to the selected program listing from the remote access interactive television program guide to the local interactive television program guide over the Internet communications path.” Rovi Br. at 80 (citing CX-0002C (Shamos WS) at Q/A 233; JX-0105C (McCann Dep. Tr.) 66-67 and at JX-0090C (Brown Dep. Tr.) 25, 27-28, 71-72). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1e also show that the following claim elements are met by the X1 system: '263 claim elements 14c, 17b; '413 claim elements 1d, 10d; and '801 claim elements 1c, 5c, 10e, 15e. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801

Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 271, 293, 306, 318, 334, 350.

Rovi Br. at 82.

Comcast argues that its “X1 platform does not infringe any of the asserted claims because X1 does not transmit a ‘communication’ identifying the user-selected program from the remote guide to the local guide.” Resps. Br. at 92 (Section VIII(C)(2)(a)(iii)). Comcast’s argument relies upon a hyper-technical reading of “communication,” where the communication sent from the remote guide is identical to the communication received by the local guide. *See id.* at 92-93.

The evidence of record shows that the accused X1 products satisfy this limitation. Dr. Shamos testified that the Comcast Xfinity TV Remote App, running on a mobile device, transmits a communication, *e.g.*, a message, that identifies the selection, via the internet. *See* CX-0002C (Shamos WS) at Q/A 233; *see also* CX-1697 (Xfinity DVR Cloud Video).

(b) Legacy System

Rovi argues that the “Comcast Xfinity TV Remote App running on a mobile device meets this element.” Rovi Br. at 82 (citing CX-0002C (Shamos WS) at Q/A 234). Rovi argues that “[f]or the reasons discussed in Section V(E)(1)(f)(i) [which addresses infringement of the X1 system], *supra*, regarding the communication between the remote guide and the local guide, the Legacy system remains infringing.” *Id.* at 82-83. Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1e also show that the following claim elements

are met by the Legacy system: '263 claim elements 14c, 17b; '413 claim elements 1d, 10d; and '801 claim elements 1c, 5c, 10e, 15e. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the '413 Patent), CX-1602 (Legacy Guide Screenshots for the '801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 271, 293, 306, 318, 334, 350.

Id. at 83.

Comcast argues that this limitation is not met, and acknowledges that the “dispute here is essentially the same as for the X1 platform.” Resps. Br. at 103.

The evidence of record shows that the accused Legacy products satisfy this limitation. Dr. Shamos testified that the Comcast Xfinity TV Remote App, running on a mobile device, transmits a communication, *e.g.*, a message, that identifies the selection, via the internet. *See* CX-0002C (Shamos WS) at Q/A 234.

(7) Limitation 1f

The text for this limitation is: “wherein the local interactive television program guide receives the communication and records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment[.]” *See* Rovi Br. at 83.

(a) X1 System

Rovi argues that the “Comcast X1 local guide running on a Comcast Xfinity AX013ANC set-top box (or PX011ANM set-top box) meets this element.” Rovi Br. at 83 (citing CX-0002C (Shamos WS) at Q/A 236). Rovi cites JX-0105C (McCann Depo. Tr.) 62-63 (“[]”) to support its argument that “recordings are stored on the hard drive on the set-top box.” *Id.* Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1f also show the following elements are met by the X1 system: '263 claim elements 2, 14d, 17c; '413 claim elements 1e; and '801 claim elements 1d, 1e, 5d, 5e, 10f, 10g, 15f, 15g. CX-1659 (Xfinity IPG Screenshots). CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1627, -1633, -1637 (X1 Screenshots for the '263 Patent); CX-1886 (Xfinity TV Remote for Google Play); CX-1887 (Xfinity TV Remote Screenshot); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 239, 252, 261, 273, 308, 310, 320, 322, 336, 338, 352, 354.

Id. at 83-84.

Comcast’s “communication” argument applies here. *See* Resps. Br. at 92 (Section VIII(C)(2)(a)(iii)). The administrative law judge has already rejected Comcast’s communication argument. *See* Section IV(B)(2)(c)(12).

The evidence of record shows that the accused X1 products satisfy this limitation. Dr. Shamos testified that a Comcast X1 local guide, running on an AX013ANC set-top box, receives the record message and records the selected TV program on memory within the set-top box. *See* CX-0002C (Shamos WS) at Q/A 236; *see also* CX-1697 (Xfinity DVR Cloud Video).

(b) Legacy System

Rovi argues “Comcast Legacy local guide running on a Comcast Xfinity DCX3501M set-top box meets this element.” Rovi Br. at 84 (citing CX-0002C (Shamos WS) at Q/A 237). Rovi cites to hardware specifications to support its argument that “Comcast’s legacy systems store recorded programs on the set-top box.” *Id.* (citing CX-1370C (RNG-200 Hardware, Case & Packaging Spec.); CX-1288 (DCX3501-M Set-Top Datasheet); CX-1225 (DCX3501-M User Guide)). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1f also show the following elements are met by the Legacy system: '263 claim elements: 2, 14d, 17c; '413 claim elements 1e; and '801 claim elements 1d, 1e, 5d, 5e, 10f, 10g, 15f, 15g. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the '413 Patent), CX-1602 (Legacy Guide Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 240, 252, 261, 273, 308, 310, 320, 322, 336, 338, 352, 354.

Id. at 84.

Comcast's "communication" argument applies here. *See* Resps. Br. at 103 (Section VIII(C)(2)(b)(ii)). The administrative law judge has already rejected Comcast's communication argument. *See* Section IV(B)(2)(c)(12).

The evidence of record shows that the accused Legacy products satisfy this limitation. A Comcast Legacy local guide running on a DCX3501M set-top box receives the record message and records the selected TV program on memory within the set-top box. *See* CX-0002C (Shamos WS) at Q/A 237.

b) Claims 2, 14, and 17

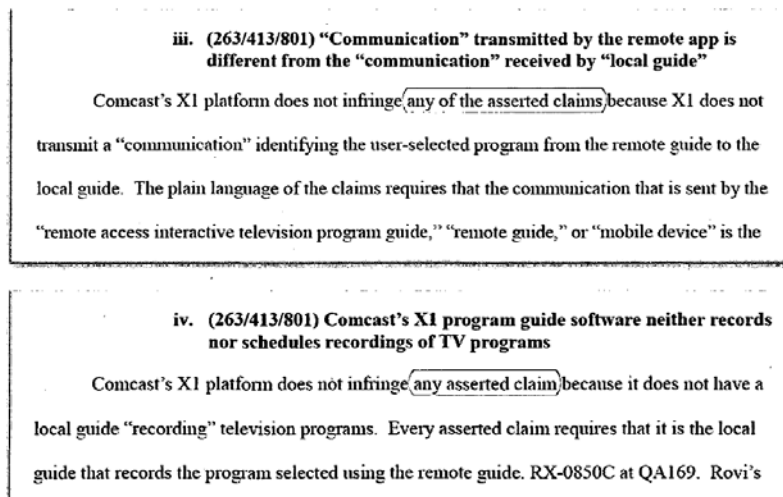
The administrative law judge has determined that the accused X1 and Legacy products infringe claim 1. Neither Rovi nor Comcast presents separate, substantive argument as to whether Comcast does or does not infringe claims 2, 14, and 17. As an example, for limitation 1f (immediately above), Rovi concludes with the following sentence that refers to dependent claim 2 and independent claims 14 and 17:

The evidence and arguments made with respect to '263 claim element If also show the following elements are met by the X1 system: **'263 claim elements 2, 14d, 17c**; '413 claim elements 1e; and '801 claim elements 1d, 1e, 5d, 5e, 10f, 10g, 15f, 15g. CX-1659 (Xfinity IPG Screenshots). CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1627, -1633, -1637 (X1 Screenshots for the '263 Patent); CX-1886 (Xfinity TV Remote for Google Play); CX-1887 (Xfinity TV Remote

Screenshot); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 239, 252, 261, 273, 308, 310, 320, 322, 336, 338, 352, 354.

Rovi Br. at 83-84 (emphasis added).

Comcast's arguments similarly do not distinguish between discrete claims or claim limitations. For example, Comcast identifies the three Remote Access patents in sub-headings and does not identify any claim numbers or alphanumeric claim limitations in its subsequent argument. *See* Resps. Br. at 92-97 (Sections VIII(C)(2)(a)(iii), VIII(C)(2)(a)(iv)). Two exemplary images follow:



Id. (highlighting added). In reply, Comcast adds:

The entirety of Rovi's infringement analysis addresses only claim 1 of the

'263 patent. There is no analysis of any dependent claim, nor is there any analysis of any claim of the '413 or '801 patents. *See* Compl. PoHB at 62-84. While Respondents agree that all of the independent claims of the '263 and '413 patents are essentially identical and Rovi's approach is reasonable for those five claims, Respondents do not agree this is proper for the remaining claims.

Rovi asserts, without any explanation, that the evidence presented for . . . '263 element 1f is sufficient for '263 dependent claim 2. Compl. PoHB at 69, 71, 76. Respondents disagree. . . . '263 claim 2 requires that the local guide record the program on user television equipment. *See* JX-0002 ('263 patent) at 28:64-67. This feature is *not addressed* in Rovi's discussion of '263 element 1f. *See* Compl. PoHB at 83-84.

Resps. Reply at 27-28 (emphasis in original).

Dependent claim 2 follows: "2. The system defined in claim 1 wherein the local interactive television program guide records the television program corresponding to the selected program listing on the user television equipment." JX-0002 at 28:64-67.

The evidence Rovi cites for limitation 1f is sufficient to demonstrate infringement for claim 2, and beside stating that it disagrees, Comcast has not explained (or cited any evidence demonstrating) how the accused products do not infringe. Thus, Comcast has not rebutted Rovi's showing that claim 2 is infringed.

Accordingly, the administrative law judge finds that the accused products infringe claims 2, 14 and 17 for the same reasons they infringe claim 1.

c) Comcast's Additional Non-Infringement Arguments

Comcast argues that the accused products do not infringe because they “can be operated in many different configurations that are not accused by Rovi of infringement[.]” Resps. Br. at 86 (Section VIII(C)(2)(a)(i)). Comcast further argues that the accused products do not infringe because the “TV Go” and “TV” applications “cannot even generate a display of program listings by using a user profile[.]” *Id.* at 98-99 (Section VIII(C)(2)(a)(vi)).

(1) Comcast's Different Configurations Argument

Comcast argues that the accused X1 and Legacy products do not infringe “any of the asserted claims of the Remote Access patents because there can be no direct infringement when an accused product can be operated in ways that are not accused of infringing the asserted claims.” Resps. Br. at 86, 103. Comcast, relying upon *Acco Brands v. ABA Locks Manufacturer Co.*, 501 F.3d 1307 (Fed. Cir. 2007), argues that non-accused modes of operation avoid infringement:

any other operation of the accused products, such as, using “favorites” to view listings (without selecting a program for recording) or selecting a program for recording from a full guide display without the “favorites” filter applied, are not accused of infringement. Given these non-accused

uses, this case falls squarely within the *Acco Brands* decision, and Comcast does not directly infringe the claims.

Resps. Br. at 87.

Rovi replies that Comcast has misconstrued Rovi's proof of infringement and misapplied *Acco Brands*. Rovi Reply at 26-29. Rovi argues that Comcast's "argument is incorrect, ignores myriad forms of user profile information established by Rovi, and misapplies the *Acco Brands* case, which is not applicable here." *Id.* at 26. Rovi supports its argument by citing to evidence of direct infringement, by distinguishing *Acco Brands*, and by analogizing this case to *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1204 (Fed. Cir. 2010) and *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358 (Fed. Cir. 2012). *Id.* at 26-28.

Acco Brands explains that "to prove direct infringement, a patentee must either point to specific instances of direct infringement or show that the accused device necessarily infringes the patent in suit." 501 F.3d at 1313. The court did not find infringement because "ACCO failed to point to specific instances of direct infringement," not because there were non-accused uses, as Comcast contends. *Compare id. with* Resps. Br. at 87. Accordingly, the administrative law judge has determined that Comcast cannot avoid infringement simply because there may be alternative ways to use the accused products.

(2) *The "TVGo" and "TV" Applications*

Comcast's entire argument is:

The “TV Go” and “TV” applications cannot infringe the “user profile” limitations of all of the asserted claims of the ’263 and ’413 patents because they lack the ability to filter a grid by the user’s favorite channels. RX-0850C (Wigdor RWS) at Q/A 214-215; Tr. 197:19-198:1.

Resps. Br. at 98-99.

The parties agreed that “user profile” means “user specific data at least defining preferences.” *See* Joint Outline at 4. Comcast has not sufficiently explained how lacking “the ability to filter a grid by the user’s favorite channels” is coextensive with the agreed construction such that evidence would support a non-infringement finding. Further, the evidence shows that various different types of information may constitute a user profile. *See* Rovi Reply at 29 (citing CX-0002C (Shamos WS) at Q/A 75, 81, 86, 88, 117, 158, 171, 366, and 368). Accordingly, the administrative law judge has determined that Comcast cannot avoid infringement simply because certain aspects of the accused products may lack the ability to filter a grid by a user’s favorite channels.

5. Indirect Infringement

(a) Knowledge of the ’263 Patent and Specific Intent to Infringe

As discussed below, Comcast’s actions indicate that it had specific intent to encourage infringement of the ’263 Patent.

Rovi argues that Comcast has induced its suppliers:

Comcast has induced, and continues to induce, its OEMs, ARRIS and Technicolor, to directly infringe the Asserted Claims of the Asserted Patents under 35 U.S.C. § 271(b) by, among other things: (1) purchasing the accused set-top boxes from Arris and Technicolor; (2) causing the manufacture and importation of infringing devices to occur; and (3) requiring the installation of the relevant software onto the set-top boxes prior to their importation.

Rovi Br. at 87. Rovi also argues that Comcast has induced its own customers:

Comcast instructs, directs, or advises its users on how to carry out direct infringement of the asserted claims. Wigdor Tr. 876-79 (testifying that Comcast promotes, tells, and describes to its users how to use the remote recording functionality of the Comcast accused products, and not disputing that Comcast promotes the use of the X1 system, including the Xfinity Apps, in much the same way of the teachings recited in the Asserted Claims in its online promotional materials such as CX-1886 (Xfinity TV Remote for Google Play Store) and CX-1887 (Xfinity TV Remote for Apple App Store)); Shamos Tr. 259-62 (testifying on CX-1697 (Xfinity DVR Cloud Video) which instructs its customers on how to use the Xfinity DVR on the cloud using Comcast Xfinity Apps in a manner that Dr.

Shamos has opined infringes the Asserted Claims).

Id. at 88.

Comcast had actual knowledge of the '263 Patent at least since 2014, when Comcast and Rovi held license-renewal discussions. CX-1725C (Comcast Interrog. Resp.) at 11-13; *see also* CDX-0303C (citing CX-0292C, CX-0272C, CX-1450C); RX-0860C; Resps. Br. at 112. Comcast does not argue that it did not have knowledge of the '263 Patent. *See generally* Resps. Br., Section VIII(C)(3). Further, Comcast knew, or was willfully blind to the high probability that, its actions would cause its suppliers and its customers to infringe the '263 Patent. Comcast previously licensed the '263 Patent (in other words, it paid for the right to infringe it), it received claim charts articulating Rovi's infringement allegations and did not respond to them, and it has not disclosed any exculpatory opinion of counsel despite retaining opinion counsel. *See* CX-0001C (Armaly WS) at Q/A 114 (discussing the licensed patents and the license, JX-0051C), Q/A 120-24, 129-30 (discussing claim charts); RX-0860C (Comcast's Chief Patent Counsel's testimonial aid showing retention of opinion counsel); *Suprema, Inc. v. Int'l Trade Comm'n*, 626 F. App'x 273, 282 (Fed. Cir. 2015) (panel remand) (affirming conclusion of specific intent where the "Commission also found that Suprema's failure to obtain an opinion of counsel constituted an additional fact evidencing Suprema's willful blindness.").⁸³ Comcast also provided its

⁸³ To the extent Comcast argues it relied upon an opinion of counsel, it has not shown it relied upon the opinion. *See Bose Corp. v. SDI Techs., Inc.*, 558 F. App'x 1012, 1024 (Fed. Cir. 2014) ("Without proof of good-faith reliance, possession of the opinion

customers with instructions on how to use the accused systems in an infringing manner. *See* Tr. (Shamos) 259-622 (testifying on CX-1697 (Xfinity DVR Cloud Video); CX-1886 (Xfinity TV Remote for Google Play Store) and CX-1887 (Xfinity TV Remote for Apple App Store)).

Comcast's assertions that the "reasonable claim constructions" it developed during the litigation negate its pre-suit intent do not rebut the facts that support finding it had the intent to infringe Rovi's patents. Additionally, Comcast's argument, if accepted, would negate § 271(b), because almost every accused infringer can advance a reasonable claim construction or non-infringement argument. *See Certain Semiconductor Chips and Products Containing Same*, Inv. No. 337-TA-753, USITC Pub. No. 4386, Comm'n Op. at 41 (Mar. 2013) (affirming finding of induced infringement where respondents asserted "they had plausible litigation defenses" because "[m]any or most accused infringers have such plausible defenses[.]").

Finally, Comcast does not rebut Rovi's argument that it induces ARRIS and Technicolor to infringe the asserted claims by purchasing the boxes made by ARRIS and Technicolor and by causing ARRIS and Technicolor to import the accused boxes. *Compare* Rovi Br. at 87-88 (arguing that ARRIS and Technicolor "directly infringe the Asserted Claims of the Asserted Patents under 35 U.S.C. § 271(b)") *with* Resps. Br. at 106-112 (Section VIII(C)(3)) (no rebuttal is presented).

alone is hardly dispositive of the state of mind necessary to avoid liability.")

***b) Indirect Infringement of the '263
Patent in the United States***

(1) Comcast's Customers

Evidence shows that Comcast's customers use the accused X1 and Legacy systems in an infringing manner in the United States.

Evidence shows that Comcast instructs, directs, or advises its users on how to carry out direct infringement of the asserted claims with the accused products. *See* Tr. 876-879 (Dr. Wigdor, testifying that Comcast promotes, tells, and describes to its users how to use the remote recording functionality of the Comcast accused products, and not disputing that Comcast promotes the use of the X1 system, including the Xfinity Apps, in much the same way of the teachings recited in the asserted claims in its online promotional materials such as CX-1886 (Xfinity TV Remote for Google Play Store) and CX-1887 (Xfinity TV Remote for Apple App Store)); Tr. 259-262 (Dr. Shamos, testifying on CX-1697 (Xfinity DVR Cloud Video) which instructs its customers on how to use the Xfinity DVR on the cloud using Comcast Xfinity Apps in a manner that Dr. Shamos has opined infringes the asserted claims).⁸⁴

Using these applications (in connection with the X1 and Legacy set-top boxes) involves using user profile information to generate the display on the remote guide. *See* Tr. 903 (Dr. Wigdor); JX-0090C (Brown Dep. Tr.) at 65-68, 76-78, 80-82; JX-0105C (McCann Dep.

⁸⁴ The Xfinity TV Remote App can be used with the Legacy guides. *See* CX-0002C at Q/A 219 (discussing the Legacy guide and the TV Remote App); CX-1598 (Legacy guide); CX-1781 (additional evidence pertaining to the Legacy guide).

Tr.) at 121-23; Tr. 251 (Dr. Shamos, describing how favorite channels, recently viewed programs, recently recorded programs, and parental control information can all be used to display television program listing on a mobile device based on user profile information). For example, CX-1696 (The X1 Platform Video), CX-0456 (X1 Entertainment Operating System Brochure), CX-1886 (Xfinity TV Remote for Google Play), CX-1887 (Screenshots - Xfinity TV Remote), CX-1890 (Set Up Recording Webpg), and CX-1894 (Xfinity TV Remote App website) all show that Comcast instructs its users to view remote interactive television program guide on the user's smartphone by using the Xfinity X1 App. CX-0002C (Shamos WS) at Q/A 179. Using this App, the user can view a remote interactive television program guide or get "recommendations just for [the specific user]." CX-1696 (The X1 Platform Video). Once the user has decided which programs to record, the app then communicates with the user's DVR over the Internet and instructs the DVR to record the selected programming *and* displays the programs selected for recording on the remote guide generated for display to the user. *Id.* CX-1886 (Xfinity TV Remote for Google Play) shows that the Android version of the Xfinity TV Remote App had "1,000,000 to 5,000,000" installs as of October 2016. Comcast also provides instructions to its customers on using cloud-based videos and DVR. CX-1692 (How to Get Started with Cloud-Based DVR); CX-0002C (Shamos WS) at Q/A 37, 178-79.

Evidence also shows that customers utilize the Xfinity Apps the way Comcast promotes them. Tr. (Nush) 731 (agreeing that CX-1894 (Xfinity TV Remote App website) "provides and informs your users that you can schedule your DVR when you're away from home."). For example, Mr. Peter Nush testified at

the hearing on the number of remote recording requests that occurred using the Xfinity Apps in the United States (including the TV App and Remote TV App). Tr. (Nush) 732-734. Mr. Nush confirmed CX-1515C provides usage data including numbers of recording requests that occurred for a given month using the Xfinity Apps. Tr. (Nush) 732. For example, CX-1515C (Comcast Remote Client Application Usage Data) at 4 shows that from April through August, 2016, the Xfinity TV Application had between [] remote recording requests for a single episode. The Xfinity TV-Mobile App had between [] of the same requests during the same period. Similarly, CX-1515C at 4 shows that from April through August, 2016, the Xfinity TV Application had between [] remote recording requests for a series recording. The Xfinity TV-Mobile App had between [] of the same requests during the same period.⁸⁵

Mr. Nush also testified that Comcast has subscribers who use the Legacy guides and that CX-1515C includes metrics showing “whether the users

⁸⁵ Rovi argues that: “any suggestion from Comcast (or Dr. Wigdor) that the numbers of remote recordings are not limited to the accused products is wrong” because “Comcast’s Xfinity TV Remote Application does not work with any Samsung set-top boxes.” Rovi Br. at 89-90 (citing CX-1894 (Xfinity TV Remote App website showing set-top boxes that do not support Xfinity TV Remote app remote functionality)). Comcast critiques Rovi’s reliance on data provided by Peter Nush, a Comcast employee, and argues that the data does not “show” infringement because Rovi did not capture a customer using every aspect of the infringing system (*e.g.*, Rovi did not show a user making a selection from a mobile display screen). *See* Resps. Br. at 107-08. Comcast’s argument demands too much; Rovi is not required to prove its case beyond a reasonable doubt.

have X1 or legacy ('native') set-top boxes[.]” RX-0839C (Nush RWS) at Q/A 38.

(2) Comcast's Suppliers

Rovi argues that Comcast induces ARRIS and Technicolor to infringe the asserted claims by purchasing the boxes made by ARRIS and Technicolor and by causing ARRIS and Technicolor to import the accused boxes. *See* Rovi Br. at 87-88 (arguing that ARRIS and Technicolor “directly infringe the Asserted Claims of the Asserted Patents under 35 U.S.C. § 271(b)”).

In reply, Comcast argues:

Rovi's allegation that Comcast has induced the infringement of Arris & Technicolor makes no sense, as Rovi does not even allege that Arris or Technicolor directly infringe; they are only alleged to have contributorily infringed. *See* Compl. PoHB at 93-95. One cannot induce a contributory infringement. *See Limelight Networks*, 134 S.Ct. at 2117 (“where there has been no direct infringement, there can be no inducement of infringement”). Moreover, given the admissions that mobile devices are necessary for infringement (*see, e.g.*, Tr. at 170:12-23) and the fact that Arris and Technicolor only provide STBs, not mobile devices, Arris and Technicolor could not be found to have directly infringed. Thus, Rovi's allegations that Comcast has induced their alleged infringement must fail.

Resps. Reply at 25. The asserted claims require a remote access device, which ARRIS and Technicolor do not provide. Thus, ARRIS and Technicolor do not directly infringe the '263 Patent.

Accordingly, the administrative law judge has determined that Comcast has not induced ARRIS and Technicolor to infringe the '263 Patent's asserted claims.

c) Contributory Infringement of the '263 Patent

To prevail on a contributory infringement claim, a complainant must show that, *inter alia*, the accused product is “not a staple article or commodity of commerce suitable for substantial noninfringing use[.]” *See* 35 U.S.C. § 271(c); *Fujitsu*, 620 F.3d at 1326 (“To establish contributory infringement, the patent owner must show the following elements relevant to this appeal: 1) that there is direct infringement, 2) that the accused infringer had knowledge of the patent, 3) that the component has no substantial noninfringing uses, and 4) that the component is a material part of the invention.”).⁸⁶

(1) X1 System

The administrative law judge has determined that Rovi has fallen short of meeting its burden of showing that the accused products have no substantial non-infringing uses; rather, the evidence shows that there are many substantial non-infringing uses of the accused set-top boxes and their corresponding

⁸⁶ *See also* Section III(C)(2)(b) (general principles of law) and Section IV(A)(5)(b) (citing *In re Bill of Lading Transmission*, 681 F.3d at 1338; *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d at 1327; *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d at 851), *supra*.

ecosystem. Exemplary uses include watching television programs (*e.g.*, using the boxes with a local guide), ordering and watching pay per view programs, watching video on demand programs, or scheduling recordings through the set-top box. *See* RX-0850C (Wigdor RWS) at Q/A 85-86; Tr. 229, 838-839. Furthermore, the frequency of the use of the remote recording functionality also indicates that the infringing use is not a substantial use. *See* RX-0850C (Wigdor RWS) at Q/A 86 (“there are over 22 million Comcast subscribers and no more than [] of those users remotely recorded a program”); RX-0839C (Nush RWS) at Q/A 33-56 (providing Comcast’s usage data). Thus, the administrative law judge finds that the accused ARRIS and Technicolor set-top boxes have substantial non-infringing uses, and accordingly that ARRIS and Technicolor do not contributorily infringe the ’263 Patent.

(2) Legacy System

Rovi does not advance a separate argument for the accused Legacy products. *See generally* Rovi Br., Section V(F). Comcast argues that the accused Legacy products have the same substantial non-infringing uses as the X1 products. *See generally* Resps. Br. at 114. Accordingly, the administrative law judge has determined that Rovi fell short of meeting its burden of showing that the accused Legacy products have no substantial non-infringing uses.

6. Domestic Industry – Technical Prong

a) Claim 1

Rovi divides its analysis for claim 1 in seven claim-element subparts (1pre, 1a, 1b, 1c, 1d, 1e, and 1f). *See* Rovi Br. at 60. Each subpart is addressed below. Rovi

has identified its i-Guide and Passport Systems, along with a Verizon guide, as the domestic industry products. *Id.* at 95.

Rovi also refers to the Suddenlink guide. *See* Rovi Br. at 95; Joint Outline at 7. This is the entire reference:

To the extent, [*sic*] Suddenlink practices the Asserted Patents by virtue of implementing the i-Guide, the Suddenlink products practice the Asserted Patents in the same way i-Guide practices the same. CX-1762 (Suddenlink User Reference Manual); CX-1242 (i-Guide User Reference Manual).

Rovi Br. at 95. The issue of whether the Suddenlink products practice the '263, '413, and '801 Patents is not listed separately in the Joint Outline. *See generally* Joint Outline at 8. The administrative law judge finds that Rovi has shown the Suddenlink products are sufficiently similar to the Rovi products, and that Comcast has not presented sufficient rebuttal.

(1) Limitation 1pre

The text for this limitation is: “A system for selecting television programs over a remote access link comprising an Internet communications path for recording, comprising[.]” *See* Rovi Br. at 62, 97.

(a) Rovi i-Guide and Passport Systems

Rovi argues that “Rovi’s i-Guide or Rovi’s Passport running on a [] set-top box, and TotalGuide xD App running on a mobile device meet this element.” *Id.* at 97 (citing CX-0002C (Shamos WS) at Q/A 387-88;

CDX-0307C (CX-0002C (Shamos WS) at Q/A 383-433)) (additional exhibits are also cited)). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1pre also show that the following claim elements are met by the Rovi systems: '263 claim elements 14pre, 17pre; '413 claim elements 1pre, 10pre; and '801 claim elements 1pre, 1a, 5 pre, 5a, 10pre, 10a, 10c, 15pre, 15a, 15c. CX-0002C (Shamos - WS) at Q/A 434-35, 444-45, 452-53, 474-75, 488-89, 490-92, 504-07, 516-19, 522-23, 532-35, 538-39.

Rovi Br. at 98-99.

Comcast does not squarely address the preamble in its post-hearing brief. *See generally* Resps. Br. at 114-116 (Section VIII(D)).

Accordingly, the administrative law judge has determined that the record evidence demonstrates that the Rovi products satisfy this limitation.

(b) Verizon FiOS System

Rovi argues that [] and Verizon FiOS Mobile App, running on a mobile device, meet this element.” Rovi Br. at 98 (citing CX-0002C (Shamos WS) at Q/A 391). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1pre also show that the following claim elements are met by the Verizon system: '263 claim elements 14pre, 17pre; '413 claim elements 1pre, 10pre; and '801 claim

elements 1pre, 1a, 5pre, 5a,. [sic] 10pre, 10a, 10c, 15pre, 15a, 15c. CX-0002C (Shamos WS) at Q/A 434-35, 444-45, 452-53, 474-75, 488-89, 490, 495, 504-07, 516-19, 522-23, 532-35, 538-39.

Rovi Br. at 98-99.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

Accordingly, the administrative law judge has determined that the record evidence demonstrates that the Verizon products satisfy this limitation.

(2) Limitation 1a

The text for this limitation is: “a local interactive television program guide equipment on which a local interactive television program guide is implemented, wherein the local interactive television program guide equipment includes user television equipment located within a user’s home and the local interactive television program guide generates a display of one or more program listings for display on a display device at the user’s home[.]” *See* Rovi Br. at 66, 99.

(a) Rovi i-Guide and Passport Systems

Rovi argues that “Rovi’s i-Guide or Rovi’s Passport running on a [] set-top box meets this element.” Rovi Br. at 99 (citing CX-0002C (Shamos WS) at Q/A 393-94). Rovi further contends that “the local guide includes user television equipment, but is not limited to user television equipment” for the same reasons it put forth in arguing that Comcast’s products infringe. *Id.* at 100. Rovi concludes with the following:

The evidence and arguments made with respect to ’263 element 1a also show that

the following claim elements are met by the Rovi systems: '263 claim elements 14a, 14b, 14c, 17a; '413 claim elements 1a, 10a; and '801 claim elements 1a, 1b, 5a, 5b, 10a, 10b, 10c, 10d, 15a, 15b, 15c, 15d. CX-0002C (Shamos WS) at Q/A 436-41, 446-47, 454-55, 476-77, 490-92, 496-97, 506-09, 518-25, 534-41.

Rovi Br. at 100.

Comcast does not squarely address this limitation in its post-hearing brief. *See generally* Resps. Br. at 114-116 (Section VIII(D)).

The evidence of record shows that the Rovi products satisfy this limitation. Dr. Shamos testified that Rovi's i-Guide running on a [] set top box generates a display of TV program listings for display on a TV in the home. *See* CX-0002C (Shamos WS) at Q/A 393-94.

(b) Verizon FiOS System

Rovi argues that the "Verizon [] box, running Verizon local guide, meets this element." Rovi Br. at 100 (citing CX-0002C (Shamos WS) at Q/A 397). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1a also show the following elements are met by the Verizon system: '263 claim elements 14a, 14b, 14c, 17a; '413 claim elements 1a, 10a; and '801 claim elements 1a, 1b, 5a, 5b, 10a, 10b, 10c, 10d, 15a, 15b, 15c, 15d. CX-0002C (Shamos WS) at Q/A 436-41, 446-47, 454-55, 476-77, 490, 495-97, 506-09, 518-25, 534-41.

Id. at 100.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

The evidence of record shows that the Verizon products satisfy this limitation. Dr. Shamos testified that Verizon local guide running on an [] set-top box generates a display of TV program listings for display on a TV in the home. *See* CX-0002C (Shamos WS) at Q/A 397; CX-1663.

(3) Limitation 1b

The text for this limitation is: “a remote program guide access device located outside of the user’s home on which a remote access interactive television program guide is implemented, wherein the remote program guide access device is a mobile device, and wherein the remote access interactive television program guide[.]” *See* Rovi Br. at 71, 101.

(a) Rovi i-Guide and Passport Systems

Rovi argues that “Rovi’s i-Guide or Rovi’s Passport running on a [] set-top box, and TotalGuide xD App running on a mobile device meet this element.” Rovi Br. at, 101 (citing CX-0002C (Shamos WS) at Q/A 399-400). Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1b also show the following elements are met by the Rovi systems: ’263 claim elements 14c, 17b; ’413 claim elements 1a, 10a, 10b; and ’801 claim elements 1a, 5a, 10a, 10c, 15a, 15c. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 454-55, 476-79, 490-

92, 506-07, 518-19, 522-23, 534-35, 538-39.

Id. at 101.

Comcast does not dispute that the Rovi products meets this limitation. *See generally* Resps. Br., Section VIII(D) (this limitation is not addressed).

The evidence of record shows that the Rovi products satisfy this limitation. As Dr. Shamos testified, a mobile device running Rovi's i-Guide or Rovi's Passport running on a [] set-top box, and TotalGuide xD App running on a mobile device meet this element, constitutes the claimed remote program guide access device located outside of the user's home. *See* CX-0002C (Shamos WS) at Q/A 399-400.

(b) Verizon FiOS System

Rovi argues that a "mobile device, running Verizon FiOS Mobile App, meets this element." Rovi Br. at 101 (citing CX-0002C (Shamos WS) at Q/A 403). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1b also show the following elements are met by the Verizon system: '263 claim elements 14c, 17b; '413 claim elements 1a, 10a, 10b; and '801 claim elements 1a, 5a, 10a, 10c, 15a, 15c. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 454-55, 476-79, 490, 495, 506-07, 518-19, 522-23, 534-35, 538-39.

Id. at 102.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

The evidence of record shows that the Verizon products satisfy this limitation. Dr. Shamos testified that a mobile device running Verizon FiOS Mobile App constitutes the claimed remote program guide access device located outside of the user's home. *See* CX-0002C (Shamos WS) at Q/A 403.

(4) Limitation 1c

The text for this limitation is: “generates a display of a plurality of program listings for display on the remote program guide access device, wherein the display of the plurality of program listings is generated based on a user profile stored at a location remote from the remote program guide access device[.]” *See* Rovi Br. at 72, 102.

(a) Rovi i-Guide and Passport Systems

Rovi argues that the “Rovi’s i-Guide or Rovi’s Passport running on a [] and TotalGuide xD App running on a mobile device meet this element.” Rovi Br. at 102 (citing CX-0002C (Shamos WS) at Q/A 405-06).

Rovi argues that the purchased channel lineups, favorite channels, and recording schedule indicators (*i.e.*, the red dot used to denote a recording has been scheduled) form the foundation of a user profile. *See id.* Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1c also show the following elements are met by the Rovi systems: '263 claim elements 14c, 17b; '413 claim elements 1b, 1c, 3, 5, 9, 10b, 10c, 10d, 14, 18; '801 claim elements 1a, 5a, 10a, 10c, 10d, 15a, 15c. CX-0002C (Shamos WS) at Q/A 440-41,

448-49, 456-59, 464-66, 470-73, 478-87,
490-92, 506-07, 518-19, 522-25, 534-35,
538-39.

Id. at 103.

Comcast's entire argument for the "generates a display" limitations is:

Rovi has not shown that the DI remote guides generate displays using user profiles and that users use those generated displays to select a program for recording. Tr. 239:24-240:22. This is the same issue as with infringement. RX-0850C a Q/A 78, 233.

Resps. Br. at 115. Comcast also argues:

All of the asserted claims of the '263 and '413 patents require that favorite channel lists (the asserted user profiles) be used somewhere other than on the remote device to generate a display based on the favorite channels. *Id.* at Q/A 239. Rovi has not provided evidence that the profiles are used at these other locations to generate a guide and so has failed to demonstrate a DI tech prong. Tr. 240:23-242:3; *see also* RX-0850C at Q/A 241.

Resps. Br. at 115-16.

The evidence of record shows that the Rovi products satisfy this limitation. Dr. Shamos testified that Rovi's i-Guide or Rovi's Passport running on a [] set-top box, and TotalGuide xD App running on a mobile

device meet this element. *See* CX-0002C (Shamos WS) at Q/A 405-06.

(b) Verizon FiOS System

Rovi argues that the “Verizon FiOS Mobile App, running on a mobile device, meets this element.” Rovi Br. at 103 (citing CX-0002C (Shamos WS) at Q/A 409). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1c also show the following elements are met by the Verizon system: '263 claim elements 14c, 17b; '413 claim elements 1b, 1c, 3, 5, 9, 10b, 10c, 10d, 14, 18; '801 claim elements 1a, 5a, 10a, 10c, 10d, 15a, 15c. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 456-59, 464, 469-73, 478-87, 490, 495, 506-07, 522-25, 534-35, 538-39.

Rovi Br. at 103.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

The administrative law judge has determined that the Verizon products meet this limitation. *See* CX-0002C (Shamos WS) at Q/A 409.

(5) Limitation 1d

The text for this limitation is: “receives a selection of a program listing of the plurality of program listings in the display, wherein the selection identifies a television program corresponding to the selected program listing for recording by the local interactive television program guide[.]” *See* Rovi Br. at 77, 104.

(a) Rovi i-Guide and Passport Systems

Rovi argues that “Rovi’s i-Guide or Rovi’s Passport running on a [] set-top box, and TotalGuide xD App running on a mobile device meet this element.” Rovi Br. at 104 (citing CX-0002C (Shamos WS) at Q/A 411-12). Rovi adds:

. . . The TotalGuide xD App receives a user’s selection of a program listing from the TV Listings screen. The user may tap the program listing for “America’s Court With Judge Ross” airing at 1:30 PM on channel 9, KCAL. CX-1595 (i-Guide Screenshots for the ’801 Patent) at 1-11 is exemplary of a selection for recording being observed at both the local and remote guide (*e.g.*, “Harry”). This is further illustrated by CX-1610 (Passport Screenshots for the ’801 Patent); CX-1163C (Passport Server Operation and Main Guide), CX-1662 (Rovi IPG Screenshots); CX-1591 (i-Guide Screenshots for the ’263 Patent); CX-1592 (i-Guide Screenshots for the ’413 Patent); CX-1595 (i-Guide Screenshots for the ’801 Patent); CX-1607 (Passport Screenshots for the ’263 Patent); CX-1608 (Passport Screenshots for the ’413 Patent); CX-1610 (Passport Screenshots for the ’801 Patent); CDX-0307C (CX-0002C (Shamos WS) at Q/A 383-433).

Id. Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1d also show the following elements are met by the Rovi systems: ’263 claim elements

14c, 17b; '413 claim elements 1b, 1c, 10c, 10d; and '801 claim elements 1b, 5b, 10b, 10d, 15b, 15d. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 456-59, 480-83, 496-97, 508-509, 520-21, 524-25, 536-37, 540-41.

Id. at 104.

Comcast argues:

As discussed above for infringement, all of the asserted claims require that the guide software must initiate the recordings or scheduling of recordings. *Id.* at Q/A 237. But Rovi has not presented any source code or other evidence that would demonstrate that the guide software initiates the recordings or scheduling of recordings. Doing so requires a source code analysis or equivalent evidence, none of which has been provided. *Id.* at Q/A 238.

Resps. Br. at 115.⁸⁷

The evidence of record shows that the Rovi products satisfy this limitation. Dr. Shamos testified that Rovi's i-Guide or Rovi's Passport running on a [] set-top box, and TotalGuide xD App running on a mobile device receives a show selection from programs listed in the app, for recording by the local guide. *See* CX-0002C (Shamos WS) at Q/A 411-12.

(b) Verizon FiOS System

⁸⁷ Comcast does not point toward any evidence that would support its no-domestic industry arguments. *See* RX-0850C (Wigdor RWS) at Q/A 237-38.

This is Rovi's argument:

The Verizon FiOS Mobile App, running on a mobile device, meets this element. CX-0002C (Shamos WS) at Q/A 415. For example, the Verizon FiOS Mobile App receives a user's selection of a - program listing from the TV Listings screen. The user may tap the program listing for "Copper Chef" to record. CX-1621 (Verizon FiOS Screenshots for the '263 Patent); CX-1663 (Verizon FiOS IPG Screenshots); CDX-0307C (CX-0002C (Shamos WS) at Q/A 383-433).

Rovi Br. at 104-05. Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1d also show the following elements are met by the Verizon system: '263 claim elements 14c, 17b; '413 claim elements 1b, 1c, 10c, 10d; and '801 claim elements 1b, 5b, 10b, 10d, 15b, 15d. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 456-59, 481-83, 496-97, 508-509, 520-21, 524-25, 536-37, 540-41.

Id.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

The evidence of record shows that the Verizon products satisfy this limitation. Dr. Shamos testified that the Verizon FiOS Mobile App, running on a mobile device receives a show selection from programs listed in the app, for recording by the local guide. *See* CX-0002C (Shamos WS) at Q/A 415.

(6) Limitation 1e

The text for this limitation is: “transmits a communication identifying the television program corresponding to the selected program listing from the remote access interactive television program guide to the local interactive television program guide over the Internet communications path[.]” *See* Rovi Br. at 80, 105.

(a) Rovi i-Guide and Passport Systems

Rovi argues that “Rovi’s i-Guide or Rovi’s Passport running on a [] set-top box, and TotalGuide xD App running on a mobile device meet this element.” Rovi Br. at 105 (citing CX-0002C (Shamos WS) at Q/A 417-18). Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1e also show the following elements are met by the Rovi systems: ’263 claim elements 14c, 17b; ’413 claim elements 1d, 10d; and ’801 claim elements 1c, 5c, 10e, 15e. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 460-61, 482-83, 498-99, 510-11, 526-27, 542-43.

Id. at 105-06.

Comcast’s entire argument, which relies on its reading of “communication,” is:

As discussed above for infringement, under either construction, all of the asserted claims require that the communication sent by the remote guides is the same as the communication received by the local guide. *Id.* at Q/A

235. But Rovi has not presented any evidence that would demonstrate that the transmitted “communication” is the same as the “communication” received at the STB and Rovi has not demonstrated that anything other than the STB would be the “local guide,” even under its overbroad interpretation of its incorrect construction.

Resps. Br. at 115.

The evidence of record shows that the Rovi products satisfy this limitation. Dr. Shamos testified that the TotalGuide xD App, running on a mobile device, transmits a communication, *e.g.*, a message, that identifies the selection, via the internet. *See* CX-0002C (Shamos WS) at Q/A 417-18.

(b) Verizon FiOS System

Rovi argues that the “Verizon FiOS Mobile App, running on a mobile device, meets this limitation.” Rovi Br. at 106 (citing CX-0002C (Shamos WS) at Q/A 421). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1e also show the following elements are met by the Verizon system: '263 claim elements 14c, 17b; '413 claim elements 1d, 10d; '801 claim elements 1c, 5c, 10e, 15e. CX-0002C (Shamos WS) at Q/A 440-41, 448-49, 460-61, 482-83, 498-99, 510-11, 526-27, 542-43.

Rovi Br. at 107.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

The evidence of record shows that the Verizon products satisfy this limitation. Dr. Shamos testified that the Verizon FiOS Mobile App, running on a mobile device, transmits a communication, *e.g.*, a message, that identifies the selection, via the internet. *See* CX-0002C (Shamos WS) at Q/A 421.

(7) Limitation 1f

The text for this limitation is: “wherein the local interactive television program guide receives the communication and records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment[.]” *See* Rovi Br. at 83, 106.

(a) Rovi i-Guide and Passport Systems

Rovi argues that the “Rovi’s i-Guide or Rovi’s Passport running on a [] and TotalGuide xD App running on a mobile device meet this element.” Rovi Br. at 106 (citing CX-0002C (Shamos WS) at Q/A 423-24). Rovi concludes with the following:

The evidence and arguments made with respect to ’263 claim element 1f also show the following elements are met by the X1 system: ’263 claim elements 2, 14d, 17c; ’413 claim elements 1e; and ’801 claim elements 1d, 1e, 5d, 5e, 10f, 10g, 15f, 15g. CX-1659 (Xfinity IPG Screenshots). CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX -1627, 1633, -1637 (X1

Screenshots for the '263 Patent); CX-1886 (Xfinity TV Remote for Google Play); CX-1887 (Xfinity TV Remote Screenshot); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, -1641 (X1 Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 239, 252, 261, 273, 308, 310, 320, 322, 336, 338, 352, 354.

Id. at 107.

Comcast's "communication" argument applies here. *See* Resps. Br. at 92 (Section VIII(C)(2)(a)(iii)). The administrative law judge has already rejected Comcast's communication argument. *See* Section IV(B)(2)(c)(12).

The evidence of record shows that the Rovi products satisfy this limitation. Dr. Shamos testified that a Rovi i-Guide or Passport running on a [] and TotalGuide xD App running on a mobile device, receives the record message and records the selected TV program on memory within the set-top box. *See* CX-0002C (Shamos WS) at Q/A 423-24.

(b) Verizon Fios System

Rovi argues that a "Verizon local guide, running on a [] set-top box, meets this element." Rovi Br. at 107 (citing CX-0002C (Shamos WS) at Q/A 427). Rovi cites to photographs evidencing that the system records a selected program. *See* CX-1621 (recording "Copper Chef"). Rovi concludes with the following:

The evidence and arguments made with respect to '263 claim element 1f also show the following elements are met by the . Verizon system: '263 claim elements

2, 14d, 17c; '413 claim elements 1e; and '801 claim elements 1d, 1e, 5d, 5e, 10f, 10g, 15f, 15g. CX-0002C (Shamos WS) at Q/A 428, 433, 442-43, 450-51, 462-63, 500-03, 512-15, 528-31, 544-47.

Id. at 107.

Comcast does not present separate argument for the Verizon products. *See* Resps. Br., Section VIII(D).

The evidence of record shows that the Verizon products satisfy this limitation. Dr. Shamos testified that a Verizon local guide, running on an [] *See* CX-0002C (Shamos WS) at Q/A 427.

b) Comcast's Additional Critiques

(1) Comcast's "Meager Proof" Argument

Comcast's entire argument on this point is:

For nearly every element of the Verizon products, Rovi's expert offers only screenshots as the alleged proof that an element is met. Such proof may be enough to show that a guide is displayed on the screen of either a TV or a mobile device, but it is no substitute for a source code or schematic analysis showing where and how the guide is generated, where the program listings came from, where the favorite lists (if any) are stored, and so on. This meager proof fails to carry Rovi's burden to prove that the asserted claims read on the DI products.

Resps. Br. at 114-15.

Comcast's unsupported argument does not provide any evidentiary basis to rule in its favor. While Dr.

Wigdor opined that “proving that it is the guide software that is scheduling those recordings requires a source code analysis, which Dr. Shamos has not provided,” Comcast did not point toward any evidence that would support its non-infringement and no-domestic industry arguments. *See* RX-0850C (Wigdor RWS) at Q/A 237-38.

(2) Comcast’s Patent Marking Argument

Comcast argues that “Patent marking confirms Rovi products do not practice the ’263, ’413, and ’801 patents.” Resps. Br. at 116. Comcast’s entire argument for this point is:

Rovi technical manuals and documents contain a patent marking notice, which never includes the ’263, ’413, or ’801 patents. *See, e.g.*, RX-0091C.0001; RX-0106C.0033; RX-0125C.0002.

Id.

A complainant is not required to mark its product to prevail on the domestic industry’s technical prong. *See* 19 U.S.C. § 1337. Indeed, 35 U.S.C. § 287 itself indicates marking is optional: “Patentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States, may give notice to the public that the same is patented” Thus, the administrative law judge declines to find that “patent marking confirms Rovi products do not practice the ’263, ’413, and ’801 patents.”

7. Patent Eligibility

Under step one of the *Alice* framework, Comcast argues:

The asserted claims of the Remote Access Patents are directed to the abstract idea of setting a recording on a local guide from a remote guide via communication over the Internet. For example, claim 1 of the '263 Patent, which is representative recites four basic steps:

1. generating displays of program listings using a local or remote program guide (which may be based on a user profile);
2. receiving a user selection of a program to record on a remote device;
3. transmitting that user selection over the Internet to the local guide on user television equipment; and
4. recording the selected program on the user television equipment in response to the received communication.

These steps are purely functional descriptions of using conventional equipment to implement the idea of setting a recording on a local guide from a remote guide via communication over the Internet. For example, the claims recite using entirely conventional equipment such as local interactive television program guide equipment (*e.g.*, a STB and television), a remote program guide access device (*e.g.*, mobile

phone), and conventional program guides running on that equipment. . . .

Resps. Br. at 160-61. Comcast further argues that the provisional applications for the '263, '413, and '801 patents indicate that the inventions are an “abstract idea implemented functionally on known technology.” *Id.* at 161-62.

Under step two of the *Alice* framework, Comcast argues that the asserted claims do not contain an inventive concept:

[the asserted claims] do not require any specific hardware or equipment for practicing the claims, but simply and generically recite conventional “interactive program guides,” “local interactive television program guides,” “remote interactive television program guides,” “remote devices,” “mobile devices,” and a “remote link.” RX-0007C (Wigdor WS) at Q/A 105-114.

Resps. Br. at 164. Comcast contends the specification “discloses nothing novel” apparatus-wise. *Id.* at 164-65. Comcast then addresses many recent § 101 cases. *Id.* at 165-66.

Rovi argues:

The asserted claims of the '263, '413, and '801 Patents recite a variety of specific techniques to enable IPG users for the first time to use a local guide in communication with a remote guide to identify and schedule recording of programs and to generate a display of program listings on the remote guide

based on the program guide information displaying on the local guide. This innovation is a distributed enhancement comparable to the distributed enhancement the Federal Circuit emphasized in finding claims patent-eligible in *AmDocs*. The asserted claims are directed to a specific technological improvement of a specific technological system, and they are patent-eligible under *Alice*. . . .

Rovi Br. at 128. Rovi then expands on this overview and discusses several recent cases. *Id.* at 128-132.⁸⁸

In reply, Comcast argues that Rovi did not directly address Comcast’s abstract-idea argument and that Rovi’s comparison to *Enfish* overstates Rovi’s contribution to the art. Resps. Reply at 49-50.

Rovi replies that Comcast’s arguments ignore claim limitations, does not consider the claim limitations in an ordered combination, and that Comcast has failed to argue preemption. Rovi Reply at 44-46.

a) Alice Step One: Abstract Idea

The administrative law judge finds that the asserted claims are directed toward an abstract idea. Here, in summary, claim 1 pertains to:

⁸⁸ The cases discussed include *Bascom Glob. Internet Servs. Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1327 (Fed. Cir. 2016); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016); *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2015); and *AmDocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016).

- 1) Generating program listings on a home television, via the local guide;
- 2) Generating program listings based on a user profile, on a remote device, via a remote guide;
- 3) Receiving a program selection, at the remote device;
- 4) Transmitting the program selection to the local guide;
- 5) Recording the selected program with local equipment.

While certain language and limitations add a degree of particularity to claim 1, the predominant concept embodied in claim 1 relates to scheduling a recording from a remote device. This is an abstract idea, devoid of a concrete or tangible application. *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014) (“The process of receiving copyrighted media, selecting an ad, offering the media in exchange for watching the selected ad, displaying the ad, allowing the consumer access to the media, and receiving payment from the sponsor of the ad all describe an abstract idea, devoid of a concrete or tangible application. Although certain additional limitations, such as consulting an activity log, add a degree of particularity, the concept embodied by the majority of the limitations describes only the abstract idea of showing an advertisement before delivering free content.”); *see also Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 937 (N.D. Cal. 2015) (finding interactive program guide claims “directed to the abstract idea of filtering search results using selectable categories” ineligible), *aff’d*, No. 2015-1917, 2016 WL 6575091 (Fed. Cir. Nov. 7, 2016) (Fed. Cir. R. 36); *Tech. Dev. & Licensing, LLC v. Gen. Instrument*

Corp., No. 07-cv-4512, 2016 WL 7104253, at *4-5 (N.D. Ill. Dec. 6, 2016) (finding claims directed toward a television control system for accessing favorite channels lists was an abstract idea); *Broadband iTV, Inc. v. Hawaiian Telcom, Inc.*, 136 F. Supp. 3d 1228, 1237 (D. Haw. 2015) (finding patent directed to using “hierarchical ordering based on metadata to facilitate the display and locating of video content” in an electronic program guide was an abstract idea), *aff’d*, No. 2016-1082, 2016 WL 5361570 (Fed. Cir. Sept. 26, 2016).

b) Alice Step Two: Inventive Concept

“An inventive concept that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself, and cannot simply be an instruction to implement or apply the abstract idea on a computer.” *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016); *see also Alice*, 134 S. Ct. at 2357. “The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. . . . an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *Bascom*, 827 F.3d at 1350; *see also Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1304 (Fed. Cir. 2016) (“Although some of the components and functions may appear generic, several limitations are individually unconventional (*e.g.*, completing depends upon distributed enhancing) and the overall ordered combination of all of the limitations was unconventional. It produced the advantage over the prior art by solving the technological problem at stake.”). In analyzing patent-eligibility, courts have analogized representative claims to those adjudicated

in prior cases. *See AmDocs*, 841 F.3d at 1295 (“We begin, then, with an examination of eligible and ineligible claims of a similar nature from past cases.”).

The administrative law judge has determined that Comcast has not met its burden of demonstrating that the patents are directed toward ineligible subject matter.⁸⁹

As an initial matter, Comcast does not substantively compare claim 1 of the ’263 Patent to any claims from cases finding patent-ineligibility. *Compare* Resps. Br., Section VIII(E)(7) (this section does not compare the asserted claims to any cases) *with* Section X(E)(1) (this section compares the challenged claims to cases finding ineligibility).

Rovi, on the other hand, draws an analogy between the challenged claims and *Bascom*. *See* Rovi Br. at 130-132 (Rovi also draws analogies to *Enfish*, *AmDocs*, *McRO*, *DDR Holdings*, and *Bascom*). In *Bascom*, the Federal Circuit identified that the patent-eligible inventive concept was “the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server.” *Bascom*, 827 F.3d at 1350. Comcast’s attempt to distinguish *Bascom* focuses solely on *Bascom*’s procedural posture and does not engage with the actual comparison. *See* Resps. Br. at 166. Additionally, with regard to the ’263, ’801, and ’463 Patents, Comcast does not address *AmDocs*,

⁸⁹ The administrative law judge finds Comcast has not met its burden under both the preponderance-of-the-evidence and clear-and-convincing standards.

McRO or *DDR Holdings* in its post-hearing brief or reply.

Second, although Comcast successfully argues that the generic and conventional “interactive program guides,” “local interactive television program guides,” “remote interactive television program guides,” “remote devices,” “mobile devices,” and a “remote link,” see Resps. Br. at 164-66, it does not fully address “the key question [of] whether the claims add something to the abstract idea so that the patent covers a specific application of the abstract idea, rather than the idea itself.” *Netflix v. Rovi*, 114 F. Supp. 3d at 937 (citing *Accenture Global Services, GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1341 (Fed. Cir. 2013)); *Bascom*, 827 F.3d at 1350 (“The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art.”). Here, the particular arrangement of claimed elements involves generating program listings on a remote device, based on a user profile stored away from the - remote device, receiving a program selection from that user-specific list, and transmitting the selection to prompt a recording by the local guide, on local equipment. See JX-0002 at 17:37-47 (disclosing using a user profile and data filtering “to limit the amount of data provided . . . to minimize the bandwidth requirements[.]”) This is more than using a remote device and the internet for remote recording, as Comcast argues. Accordingly, the administrative law judge has determined that Comcast has not met its burden of demonstrating that the ’263 Patent lacks an inventive concept.

8. Validity

Comcast contends that four different references anticipate the '263 Patent's asserted claims. *See* Resps. Br. at 116-154 (Section VIII(E)). The four references are Kondo, Blake, Shteyn, and Sato. *Id.* Comcast also argues that the '263 Patent's asserted claims are obvious, and it presents prior art combinations involving the four anticipatory references in combination with Kondo with Killian, Dedrick, and Young. *Id.* Comcast then argues that the asserted claims are indefinite "hybrid" claims and that the claims are directed to ineligible subject matter. *Id.*

a) Anticipation

(1) Kondo (RX-0245)

Comcast's overview of its Kondo argument concludes with the following:

The only features that are even arguably missing from Kondo are the use of "user profiles" to create the display on the remote guide (for the '263 Patent and '413 patent) and providing program guide information to the remote guide from the local guide (for the '801 patent). These features, however, even if not explicitly disclosed by Kondo, were well known in the relevant art and would have been obvious to apply to the system of Kondo, as explained below.

Resps. Br. at 117.

Rovi succinctly argues:

Dr. Wigdor provides no opinion or evidence that the Kondo reference

discloses (expressly or inherently) his summarized claim limitations of (a) remote guide implemented on a mobile device, RX-0007C (Wigdor WS) at Q/A 251; (b) user profile information received over the Internet, *id.* at Q/A 258, 279; (c) obtains user profile in response to a user input, *id.* at Q/A 282; and (d) obtains guide data based on the user profile, *id.* at 284.

Rovi Br. at 112.⁹⁰ Thus, Rovi disputes that Kondo discloses subject matter teaching limitations 1b and 1c.

For the “remote guide implemented on a mobile device” limitation (1b), Dr. Wigdor testified:

Q251. How, if at all, were the “remote guide implemented on a mobile device” limitations taught by Kondo?

A251. Given the teachings of Kondo showing a terminal TAI outside the home (RX-0245 at paragraph 0015), it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to implement the remote program guide access device (“TA1”) in a mobile device such as a laptop computer.

RX-0007C. Dr. Wigdor’s testimony, which pertains to obviousness, does not support Comcast’s anticipation

⁹⁰ RX-0007C (Wigdor WS) at Q/A 279, 282 pertain to dependent claims.

argument because it applies the wrong legal standard. Dr. Wigdor's testimony at Q/A 258, 279, 282, 284 suffers from the same defect. Accordingly, Comcast has not shown that Kondo anticipates claim 1 of the '263 Patent.

(2) *Blake (RX-0269)*

Comcast's overview of its Blake argument concludes with the following:

The only claimed features that are even arguably missing from Blake are the "user profiles" to create the display on the remote guide (for the '263 Patent and '413 patent) and providing program guide information to the remote guide from the local guide (for the '801 patent). These features, however, even if not disclosed by Blake, were well known in the relevant art and would have been obvious to apply to the system of Blake, as explained below.

Resps. Br. at 134.

Rovi succinctly argues:

Dr. Wigdor provides no opinion or evidence that the Blake reference discloses (expressly or inherently) his summarized claim limitations of (a) user profile received over the Internet, RX-0007C (Wigdor WS) at Q/A 338; (b) obtains user profile in response to a user input, *id.* at Q/A 339; and (c) obtains guide data based on the user profile, *id.* at Q/A 340.

Rovi Br. at 114.

For the “user profile received over [the] Internet” limitation (1e), Dr. Wigdor testified:

Q338. How, if at all, were the “user profile received over Internet” limitations anticipated or rendered obvious?

A338. This additional limitation would have been obvious to a person of ordinary skill in the art as of the date of invention asserted by Rovi in view of Killian. In discussing these limitations above, I’ve already described how they were taught by Killian in A281. Given those teachings, it would have been obvious to a person of ordinary skill in the art at the time to have provided the user profiles taught by Killian, Dedrick, and/or Rzeszewski to the terminals of Blake over the Internet.

RX-0007C. Dr. Wigdor’s testimony, which pertains to obviousness, does not support Comcast’s anticipation argument because it applies the wrong legal standard. Dr. Wigdor’s testimony at Q/A 339, 340 suffers from the same defect. Accordingly, Comcast has not shown that Blake anticipates claim 1 of the ’263 Patent.

(3) Shteyn (RX-0265)

Rovi succinctly argues:

Dr. Wigdor provides no opinion or evidence that the Shteyn reference teaches his summarized claim limitations of (a) generates a display

based on program guide information received from the local guide, RX-0007C (Wigdor WS) at Q/A 382; (b) user profile received over Internet, *id.* at Q/A 386; (c) obtains user profile in response to a user input, *id.* at Q/A 387; and (d) obtains guide data based on the user profile, *id.* at Q/A 388.

Rovi Br. at 116.

For the remote guide “generates a display . . . based on a user profile . . .” limitation (1c), Dr. Wigdor testified:

Q382. How if at all, were the “remote guide generates a display based on program guide information received from the local guide” limitations taught by the prior art under a proper view of the claim scope?

A382. Under a proper view of the scope of the claims, this limitation would have been obvious to a person of ordinary skill in the art on the date of invention asserted by Rovi in view of a combination of Shteyn and Humpleman.

RX-0007C. Dr. Wigdor’s testimony, which pertains to obviousness, does not support Comcast’s anticipation argument because it applies the wrong legal standard. Dr. Wigdor’s testimony at Q/A 386-88 suffers from the same defect. Accordingly, Comcast has not shown that Shteyen anticipates claim 1 of the ’263 Patent.

(4) *Sato (RX-0264)*

Rovi succinctly argues:

Dr. Wigdor provides no opinion or evidence that Sato teaches his summarized claim limitations of (a) user profile received over Internet, RX-0007C (Wigdor WS) at Q/A 450; (b) obtains user profile in response to a user input, *id.* at Q/A 451; or (c) obtains guide data based on the user profile, *id.* at Q/A 452.

Rovi Br. at 118-19.

For the “user profile received over [the] Internet” limitation (1e), Dr. Wigdor testified:

Q450. How, if at all, were the “user profile received over Internet” limitations anticipated or rendered obvious?

A450. This additional limitation would have been obvious to a person of ordinary skill in the art as of the date of invention asserted by Rovi in view of Killian. In discussing these limitations above, I’ve already described how they were taught by Killian in A281. Given those teachings, it would have been obvious to a person of ordinary skill in the art at the time to have provided the user profiles taught by Killian, Dedrick, and/or Rzeszewski to the terminals of Sato over the Internet.

RX-0007C. Dr. Wigdor’s testimony, which pertains to obviousness, does not support Comcast’s anticipation argument because it applies the wrong legal standard. Dr. Wigdor’s testimony at Q/A 451-52 suffers from the

same defect. Accordingly, Comcast has not shown that Sato anticipates claim 1 of the '263 Patent.

b) Obviousness

Comcast presents numerous obviousness arguments based on at least four primary references, Kondo, Blake, Shteyn, and Sato. *See* Resps. Br. at 116-154 (Section VIII(E)).⁹¹

(1) Comcast Provides Insufficient Rationale for Combining the Many Obviousness Arguments it Presents

Rovi argues that the administrative law judge should not find the patents obvious because Comcast did not present evidence that the identified primary references could be combined with any other reference to meet any asserted claim limitation. For example, for the Kondo combinations, Rovi argues:

Dr. Wigdor did not provide explicit opinions on why Kondo could be combined with any other reference to render obvious his summarized claim limitations of (a) remote guide implemented on a mobile device; (b) user profile information received over the Internet; (c) obtains user profile in response to a user input; and (d) obtains guide data based on the user profile that Rovi has identified as missing expressly and inherently from the disclosure of

⁹¹ The Examiner used Blake as the basis for a rejection, and Rovi disclosed most of the references used in Comcast's obviousness combinations during prosecution. *See generally* JX-0002; JX-0009 ('263 Patent's file history).

Kondo. CX-1901C (Shamos RWS) at Q/A
75.

Rovi Br. at 113 (Section V(H)(2)(d)(iii)). The same argument is repeated for combinations involving Blake, Shteyn, and Sato. *See id.*, Sections V(H)(2)(e)(iii) (Blake), V(H)(2)(f)(iii) (Shteyn), V(H)(2)(g)(iii) (Sato), and V(H)(2)(i) (critiquing every combination).

Comcast replies that it has “provided specific reasons for each combination and Rovi *never addresses the substance of these arguments*, such as explaining why a POSITA would not have applied the user profiles of Killian to other similar systems.” Resps. Reply at 46 (emphasis in original). The testimony Comcast cites, RX-0007C at Q/A 455-65, however, identifies two references and then applies them to multiple prior-art-combination permutations. For example, Dr. Wigdor testified:

Q455. Why would a person of ordinary skill in the art at the time have combined the teachings the references you discuss in this Witness Statement?

A455. A person of ordinary skill in the art at the time would have had a multitude of reasons to combine the teachings of Kondo, Blake, Shteyn, Mizuno or Sato, on the one hand, with

Young, Humpleman, Killian, Dedrick, and/or Rzeszewski, on the other, including explicit and implicit reasons.

...

Q457. What would a person of ordinary skill in the art have understood based on this teaching?

A457. This teaching of Shteyn would have motivated a person of ordinary skill in the art to combine references that taught improvements in program guide networking (like Kondo, Blake, Shteyn, Mizuno, Sato, or Humpleman) with other improvements in program guides that made use of user profiles like Killian, Dedrick, and Rzeszewski.

RX-0007C.

The administrative law judge has determined that Comcast has failed to meet its burden of proving invalidity with clear and convincing evidence. *See Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011).

The Supreme Court has explained that “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Numerous Federal Circuit decisions have followed this principle.⁹² Vague and inarticulate expert testimony

⁹² *Accord Pro batter Sports, LLC v. Sports Tutor, Inc.*, No. 2016-1800, 2017 WL 785644, at *3 (Fed. Cir. Mar. 1, 2017) (after citing *KSR*, the Federal Circuit explained that “[i]n the district court, Sports Tutor did not adduce expert testimony or even present attorney argument on why one of skill would have been motivated to combine dynamic braking with the other prior art references directed to pitching machines. Accepting Sports Tutor’s argument would essentially eliminate the motivation to combine requirement and essentially turn an obviousness analysis into an

does not provide the rational underpinning to support a conclusion of obviousness. *See InTouch Techs., Inc. v. VGO Commc'ns, Inc.*, 751 F.3d 1327, 1351 (Fed. Cir. 2014) (in finding that the defendant failed to meet its burden of proving invalidity by clear and convincing evidence, the Federal Circuit noted that the defendant's expert's testimony "was vague and did not articulate reasons why a person of ordinary skill in the art at the time of the invention would combine these references."); *ActiveVideo Networks*.⁹³

anticipation analysis."); *Purdue Pharma L.P. v. Depomed, Inc.*, 643 F. App'x 960, 965 (Fed. Cir. 2016) (in affirming a Patent Trial and Appeal Board decision finding that the IPR petitioner had not demonstrated the challenged claims were not patentable, the Federal Circuit stated that "a patent challenger must demonstrate that a skilled artisan would have had reason to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success from doing so."); *Tinnus Enterprises, LLC v. Telebrands Corp.*, 846 F.3d 1190, 1207 (Fed. Cir. 2017) (in affirming a non-obviousness finding, the Federal Circuit stated that "[a]bsent a motivation to combine, Telebrands' remaining obviousness arguments are unavailing."); *see also Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013) ("Where, as here, the necessary reasoning is absent, we cannot simply assume that 'an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.'").

⁹³ *In ActiveVideo Networks*, the Federal Circuit affirmed the grant of a JMOL that reversed jury's finding of obviousness after finding that the expert's "testimony is generic and bears no relation to any specific combination of prior art elements. It also fails to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does*" *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012) (emphasis in original). The insufficient expert testimony was: "The motivation to combine would be because you wanted to build

Dr. Wigdor's testimony, RX-0007C at Q/A 455-65, does not sufficiently explain why a person of ordinary skill in the art would have applied the multitude of asserted references—at least five primary references (including Mizuno), five secondary references, and two additional references (Young and Lawler)—to arrive at any one, particular, discrete combination of references.

(2) Comcast's Primary References, Kondo (RX-0245), Blake (RX-0269), Shteyn (RX-0265), and Sato (RX-0264), Do Not Inherently Teach a "Remote IPG Display Based on Profile" (Limitation 1c)

For all obviousness combinations, Comcast argues that the "Remote IPG Display Based on Profile" (limitation 1c) "was either inherent . . . or would have been obvious" over all of the combinations. *See* Resps. Br. at 122 (Kondo), 136 (Blake), 143 (Shteyn), 150 (Sato).⁹⁴

Rovi argues that "Dr. Wigdor provides inherency arguments as to his summarized claim limitations of (a) remote guide generates a display of program listings and (b) remote guide generates a display based on remotely stored user profile. . . . Dr. Wigdor does not provide any evidence that either of these

something better. You wanted a system that was more efficient, cheaper, or you wanted a system that had more features, makes it more attractive to your customers, because by combining these two things you could do something new that hadn't been able to do before." *Id.* at 1328.

⁹⁴ Comcast acknowledges: "These issues are substantively the same as discussed above in connection with the Kondo reference." Resps. Br. at 137, 143, 150.

summarized limitations is necessarily present in the reference.” Rovi Br. at 113.⁹⁵

The administrative law judge has determined that Comcast has failed to meet its burden of proving invalidity with clear and convincing evidence. *See Microsoft v. i4i*, 564 U.S. at 95.

Although inherency is traditionally an anticipation doctrine, it “may supply a missing claim limitation in an obviousness analysis.” *PAR Pharm., Inc. v. TWI Pharm., Inc.*, 773 F.3d 1186, 1194-95 (Fed. Cir. 2014). However, inherency “must be carefully circumscribed in the context of obviousness.” *Id.* at 1195. The Federal Circuit has explained that inherency

may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. If, however, the disclosure is sufficient to show that *the natural result flowing* from the operation as taught would result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient.

⁹⁵ The full text of Comcast’s and Dr. Wigdor’s “remote guide generates a display based on remotely stored user profile” summarized limitation is: “wherein the display of the plurality of program listings is generated based on a user profile stored at a location remote from the remote program guide access device.” *See* RX-0007C at Q/A 104. Within the context of claim 1, it is the “remote access interactive television program guide” that must display the program listings based on the user profile. *Id.*; (JX-0002 at 28:42-43).

Id. (quoting *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981) (emphasis added in *PAR Pharm.*). Here, Dr. Wigdor's inherency arguments rely on an inventor's deposition testimony pertaining to the Take3 application and "the XD" to opine that "all cable systems" generate "a display based on remotely stored user profile." RX-0007C at Q/A 258-59. Neither Comcast nor Dr. Wigdor indicates if the deponent was shown Kondo, Blake, Shteyn, or Sato or asked questions eliciting information that would show whether these references, which are the foundation of Comcast's obviousness challenge, inherently disclose information teaching the relevant claim limitation. Accordingly, Comcast has not shown that the "disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function." *PAR Pharm.*, 773 F.3d at 1194-95.

(3) *Kondo* (RX-0245, in view of *Killian* (RX-0262))

Comcast argues Killian discloses "the use of user profiles to generate displays of program listings." Resps. Br. at 124.

Rovi's entire argument about Killian is:

Killian does not disclose a remote guide. CX-1901C (Shamos RWS) at Q/A 49. The guide of Killian receives program information over the Internet, but no recording instructions are conveyed over the Internet. *Id.* Therefore, Killian does not disclose a "system for selecting television programs over a remote access link comprising an Internet communications path" because no

selection of a program is communicated over the Internet.

See Rovi Br. at 120.

Dr. Wigdor, Comcast's expert, testified, as follows:

Q265. What does Killian disclose with respect to the use of user profiles to generate displays of program listings?

A265. Killian taught generating a listing of programs ("schedule") based on a "viewer profile" and program listing information. *See* RX-0262 at 2:5-11:

The electronic programming guide includes a profile database that stores a viewer profile and a suggest module that is coupled to the profile database. The suggest module accesses the viewer profile and the program listing information and, in response, generates a preferred schedule according to the viewer profile and the program listing information.

RX-0007C. The evidence shows that Killian teaches the use of user profiles recited in limitation 1c. *See* RX-0007C at Q/A 265; RX-0262 at 2:5-11. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Kondo and Killian.⁹⁶ Accordingly, the administrative law

⁹⁶ The Supreme Court has explained that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Numerous Federal Circuit decisions have followed this principle.

judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(4) Kondo (RX-0245), in view of Killian (RX-0262), and further in view of Dedrick (RX-0258)

With regard to Dedrick, Comcast argues that “Dedrick disclosed permanently storing a user profile on a removable storage device, that is, somewhere other than on the device providing the guide, when it was not in use.” Resps. Br. at 125.

For Dedrick, Rovi argues:

Dedrick does not disclose any program guide, or the use of a profile in generating a program guide, and certainly does not disclose selecting a program for recording using a remote access link comprising an Internet communication. CX-1901C (Shamos RWS) at Q/A 55. The only reference to “television” in Dedrick is that a television set is one of the possible devices that can be metered. RX-0258 (Dedrick) at col. 3, lns. 14-16, col. 5, lns. 26-29. There is no teaching that anything displayed on the television would be affected or influenced by a user profile. *Id.*

Rovi Br. at 121.

Dr. Wigdor, Comcast's expert, testified, as follows:

Q268. What does Dedrick disclose with respect to the use of user profiles to generate displays of program listings?

A268. Dedrick disclosed permanently storing the user profile on a removable storage device, that is, somewhere other than the device, when it was not in use. For example, Dedrick taught a "personal profile database" containing "user profile data," which could be stored on a removable nonvolatile storage device. See RX-0258, Dedrick at 6:22-50:

In one embodiment, the information in personal profile database 27 is protected from access by anyone other than the individual who is associated with the information. For example, the information may be protected on a computer by encrypting the profile when it is not in use. Alternatively, the information may be stored on a removable nonvolatile storage device, such as a PCMCIA Flash memory card. Thus, an individual may remove the Flash-based profile card from a computer and thereby remove the risk of exposure of private information to other individuals operating in the network system 10. In addition, since the profile is removable, individual end users can move a profile from computer to

computer, such as between office and home.

In yet another embodiment, a portion of the user and profile information may be stored on a removable nonvolatile storage device, such as a smart card. Although the smart card has limited storage space, it is a much more inexpensive alternative as compared to a PCMCIA flash memory card. Minimum user information such as user name, address, telephone number and user password may be stored in the smart card. Other user profile information may be retrieved from a user profile server upon access by a user via the smart card. The accessed user profile information may then be transmitted back to the computer in an encrypted form and stored in the PC's volatile memory. Any user profile information which has been changed by the user may be transmitted back to the network system 10 and the personal profile may then be updated with the new information.

RX-0007C.

The evidence shows that Dedrick discloses storing user profiles remotely, as recited in limitation 1c. *See* RX-0007C at Q/A 268; RX-0258 at 6:22-50. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Kondo, Killian, and Dedrick.⁹⁷ Accordingly, the

⁹⁷ *See* n.92, *supra*.

administrative law judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(5) Blake (RX-0269), in view of Killian (RX-0262)

The administrative law judge previously determined that Killian taught user profilers as recited in limitation 1c. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Blake and Killian.⁹⁸ Accordingly, the administrative law judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(6) Blake (RX-0269), in view of Killian (RX-0262), and further in view of Dedrick (RX-0258)

The administrative law judge previously determined that Killian and Dedrick taught user profilers as recited in limitation 1c. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Blake, Killian, and Dedrick.⁹⁹ Accordingly, the administrative law judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(7) Shteyn (RX-0265), in view of Killian (RX-0262)

⁹⁸ See n.92, *supra*.

⁹⁹ See n.92, *supra*.

The administrative law judge previously determined that Killian taught user profilers as recited in limitation 1c. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Shteyn and Killian.¹⁰⁰ Accordingly, the administrative law judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(8) Shteyn (RX-0265), in view of Killian (RX-0262), and further in view of Dedrick (RX-0258)

The administrative law judge previously determined that Killian and Dedrick taught user profilers as recited in limitation 1c. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Shteyn, Killian, and Dedrick.¹⁰¹ Accordingly, the administrative law judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(9) Sato (RX-0264), in view of Killian (RX-0262)

The administrative law judge previously determined that Killian taught user profilers as recited in limitation 1c. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Sato and Killian.¹⁰² Accordingly, the administrative law judge

¹⁰⁰ See n.92, *supra*.

¹⁰¹ See n.92, *supra*.

¹⁰² See n.92, *supra*.

finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

(10) Sato (RX-0264), in view of Killian (RX-0262) and Dedrick (RX-0258)

The Joint Outline presents a combination based on Sato, Killian, and Dedrick. *See* Joint Outline at 8. Comcast's brief does not clearly present this distinct combination. *See generally* Resps. Br. at 149-53. To the extent that this is a separate argument, the administrative law judge finds that Comcast has fallen short of its burden for this particular combination for the same reasons articulated based on the combinations involving (1) Sato and Killian (discussed immediately above) and (2) Sato, Killian, Young, and Dedrick (discussed immediately below).

(11) Sato (RX-0264), in view of Killian (RX-0262), and further in view of Young (RX-0253) and Dedrick (RX-0258)

For the combination of Sato, Killian, Young, and Dedrick, Comcast references Young in relation to limitation 1b. *See* Resps. Br., Section VIII(E)(4)(b)(ii) (limitation 1b is the only limitation where Young is mentioned). Comcast argues:

. . . a POSITA, when using portable computer 107 to control the computer and video recorder 11 in the home would have used an electronic IPG on portable computer 11 to allow for the selections of programs for recording, either based on this teaching of Sato or based on Young,

which taught the advantages of IPGs long before the Remote Access Patents. *Id.* Thus, it would have been obvious to use the claimed remote IPG on computer 107. *See* RX-0007C (Wigdor WS) at Q/A 424.

Resps. Br. at 150.

Rovi references Young in its motivation-to-combine arguments. *See* Rovi Br. at 124 (“Young does not disclose responding to a communication from a remote guide to a local guide. Dr. Wigdor offers no explanation why one of skill in the art, even if motivated to combine Sato with Young, would have combined them to yield any Asserted Claim.”).

Accordingly, to the extent Sato does not teach limitation 1b, the administrative law judge finds that Young teaches the remote guide recited in limitation 1b. For the combination of Sato, Killian, and Young and/or Dedrick, the administrative law judge previously determined that Killian and Dedrick taught user profilers as recited in limitation 1c. However, as explained in Section IV(B)(7)(c)(1), above, Comcast has not provided sufficient rationale for combining Sato, Killian, and Young and/or Dedrick.¹⁰³ Accordingly, the administrative law judge finds that Comcast has not shown, through clear and convincing evidence, that claim 1 would have been obvious.

*(12) Secondary Considerations for the
'263, '801, and '413 Patents*

Rovi argues that the '263, '801, and '413 Patents were a commercial success and that a long-felt need

¹⁰³ *See* n.92 *supra*.

both support its argument that the patents are not obvious. *See* Rovi Br. at 124-25.

Comcast argues that the evidence does not support Rovi's arguments and that "there is evidence of simultaneous conception of the asserted claims, which confirms that the claims would have been obvious to a POSITA." Resps. Br. at 155.

(a) Commercial Success

Rovi argues:

Products that embody the '263, '413, and '801 Patents, including Comcast's infringing devices, have been commercially successful. CX-1905C (Putnam RWS) at Q/A 113. Comcast made \$21.526 billion in 2015 from the Accused Products, which are used by more than 22 million Comcast subscribers in the United States. CX-0811C (Rovi Commercial Success Charts); CX-0816C (Rovi U.S. Subscribers Chart). There is a nexus of the invention to the success of these embodying products. Comcast itself must believe that its remote recording feature influences consumer purchasing decisions, as Comcast has widely advertised the feature. . . . Comcast advertises the remote recording capability with a feature video. CX-1697 (Xfinity DVR Cloud Video). A narrator proclaims: "You can even schedule new shows to record and download your DVR recordings to watch anywhere, even when you're off line. It's simple." *Id.*

Rovi Br. at 126-27.

Comcast argues:

Rovi has failed to demonstrate a nexus between the alleged commercial success of the products and the asserted claims. Rovi's reliance upon alleged praise for the '263, '413, and '801 patents fails. The patentees did not invent remote recording. *See* RX-0850C (Wigdor RWS) at Q/A 74-75. Yet all of the cited evidence discusses remote recording generally, not the specific narrow inventions recited in the asserted claims. *See* Tr. 1259:12-1260:12. Thus, it fails to demonstrate a nexus.

Resps. Br. at 155 (Comcast does not dispute the monetary values Rovi presents).

The administrative law judge has determined that Rovi has made a showing that the '263 Patent and the '413 Patents were commercially successful, although the showing is weak. As Rovi has not shown that any products infringe or practice the '801 Patent, the administrative law judge finds that Rovi cannot demonstrate that patent was a commercial success.¹⁰⁴

For the nexus requirement, the Federal Circuit has explained that

¹⁰⁴ In the alternative, if it is later found that the Comcast or domestic industry products practice or infringe the '801 Patent, then the evidence shows that the '801 Patent also has had weak commercial success, as the products have enjoyed financial success and the corresponding guides embodied the claimed features.

A nexus between commercial success and the claimed features is required. . . . However, if the marketed product embodies the claimed features, and is coextensive with them, then a nexus is presumed and the burden shifts to the party asserting obviousness to present evidence to rebut the presumed nexus. . . . The presumed nexus cannot be rebutted with mere argument; evidence must be put forth.

Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1130 (Fed. Cir. 2000) (citations omitted). Here, the evidence shows that the Comcast products have enjoyed financial success and that the guides embodied the claimed features. *See* CX-1905C (Putnam RWS) at Q/A 113; *see generally* CX-1903C (Dr. Delp opines that various guides incorporate the patented features). The advertising evidence, CX-1697, also supports Rovi's arguments. *See also* CX-1905C (Putnam RWS) at Q/A 123-25.

However, Rovi's showing is weak because it has not shown that its success is not due to other factors, such as advertising and marketing or "other economic and commercial factors unrelated to the quality of the patented subject matter." *See In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (rejecting argument where patentee did not explain "that the product was purchased due to the claimed features"); *In re DBC*, 545 F.3d 1373, 1384 (Fed. Cir. 2008). In particular, Rovi has not shown that browse mode drove consumer purchasing decisions rather than other factors (such as demand for cable television itself).

Accordingly, the administrative law judge finds that while Rovi has shown that the '263 and '413 Patents were commercially successful, that showing is weak.

(b) Licensing Success

The Federal Circuit specifically requires “affirmative evidence of nexus where the evidence of commercial success presented is a license, because it is often cheaper to take licenses than to defend infringement suits.” *In re Cree*, 818 F.3d at 703 (quotations omitted). The Federal Circuit has explained that

When the specific licenses are not in the record, it is difficult for the court to determine if “the licensing program was successful either because of the merits of the claimed invention or because they were entered into as business decisions to avoid litigation, because of prior business relationships, or for other economic reasons.”

Id. (citing *In re Antor Media Corp.*, 689 F.3d 1282, 1294 (Fed. Cir. 2012)).¹⁰⁵ In general, the existence of a

¹⁰⁵ In *Antor Media*, 689 F.3d at 1294, the Federal Circuit criticized evidentiary support that is similar to the present investigation:

Antor merely lists the licensees and their respective sales revenue. The licenses themselves are not even part of the record. Antor provides no evidence showing that the licensing program was successful either because of the merits of the claimed invention or because they were entered into as business decisions to avoid litigation, because of prior business relationships, or for other economic reasons. The Board was thus correct in holding that the existence of those licenses is, on its own,

license alone is insufficient to show that the licensed patent was a commercial success. *See Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004) (“Without a showing of nexus, “the mere existence of . . . licenses is insufficient to overcome the conclusion of obviousness” when there is a strong *prima facie* case of obviousness.”); *see also Amazon.com*, 2016 WL 1170773 at *17 (“Mr. Holtzman’s testimony lists patent family licenses and revenue, but does not discuss the merits of the challenged claim as they relate to any particular license for the ’956 patent in the portfolio of licenses. . . . [this] does not establish whether a specific license (or licensing clause, etc.) for the ’956 patent occurred because of the merits of the challenged claim, the merits of unchallenged claims, for other patented inventions, or for other economic reasons related to the whole ’956 patent family.”).

The evidence shows that Rovi [] CX-0001C at Q/A 28, 31 (Rovi and licensees “[] *See id.* at Q/A 35-36; CX-1905C (Putnam RWS) at Q/A 67, 69-70.¹⁰⁶

The evidence does not show, however, that these licenses are based on the merits of the patents as opposed to a business decision to avoid litigation, a prior business relationship, or other economic reason. *See In re Cree*, 818 F.3d at 703; *In re Antor Media*, 689 F.3d at 1294. [] Accordingly, the administrative law judge has determined that Rovi has not shown that

insufficient to overcome the *prima facie* case of obviousness.

¹⁰⁶ It is not readily apparent whether the licenses are in the record or if Dr. Putnam read them. *See generally* CX-1905C (Putnam RWS) at Q/A 75-79.

licensing of these patents—apart from the portfolio—has been a success.

(c) Long-Felt Need

Rovi's entire argument is:

The '263, '413, and '801 Patents' claims fulfilled a long-felt need for an IPG that permitted interaction with a remote IPG. The inventions claimed in the '263, '801, and '413 Patents improved the user experience, such as by remotely browsing available programs and selecting a program to be recorded. CX-1904C (Williams RWS) at Q/A 103.

Rovi Br. at 254. Mr. Williams's testimony follows:

Q102: What conclusions, if any, did you come to regarding the obviousness of the '263, '413, and '801 Patents?

A102: I concluded that secondary considerations support non-obviousness of the '263, '413, and '801 patents.

Q103: How did you come to this conclusion?

A103: For one, I considered Rovi's contentions. I understand that Rovi contends that the '263, '801, and '413 Patents' claims fulfilled a long-felt need for an IPG that permitted interaction with a remote IPG, as, for example, the prior art required that the user be physically present in the home to access important program guide features such

as program recording. I also understand that Rovi contends that by providing a user with access to an interactive program guide at a remote location, the inventions claimed in the '263, '801, and '413 Patents improved the user experience, such as by remotely browsing available programs and selecting a program to be recorded.

Q104: What is your opinion as to these contentions?

A104: I agree with these contentions and they are consistent with my experience. Setting up one's tuner and VCR for recording was a cumbersome process even from within the home. The difficulty of ensuring that one recorded the pop-up show or the one that they forgot about while away from home was quite difficult. With the transition to digital Pay TV set-top boxes and DVRs, growing Internet connectivity, and the present inventions, these long-felt needs could be finally solved.

CX-1904C at Q/A 102-04.

Long-felt need "is analyzed as of the date of an articulated identified problem and evidence of efforts to solve that problem." *Texas Instruments Inc. v. U.S. Int'l Trade Comm'n*, 988 F.2d 1165, 1178 (Fed. Cir. 1993).

Rovi's evidence consists of conclusory expert testimony. *See, e.g.*, CX-1904C (Williams RWS) at Q/A 102-04. Mr. Williams did not identify the date when

the long-felt need first began (*i.e.*, Mr. Williams did not analyze the need “as of the date of an articulated identified problem and evidence of efforts to solve that problem,” per *Texas Instruments*).¹⁰⁷ *Id.*

Accordingly, the administrative law judge has determined that this testimony is insufficient to find a long-felt need, and that this factor does not support non-obviousness.

(d) Contemporaneous Invention by Others

Comcast argues:

. . . there is evidence of independently made, simultaneous inventions, made within a comparatively short space of time, which is evidence that the asserted claims were obvious to those of ordinary skill in the art at the time. As discussed above, there were a number of practitioners in the art who developed IPG systems with remote recording and user profile features around this time. The existence of all of this simultaneous development confirms that the asserted claims would have been obvious to a person of ordinary skill at that time. See RX-0007C (Wigdor WS) at Q/A 480.

Resps. Br. at 288.

¹⁰⁷ While Mr. Williams discussed the 1992, 1998, and 1999 timeframes, those discussions were not cited by Rovi, and the discussions relate to the priority dates of the patents, not the dates when the alleged need arose.

The administrative law judge has determined that Comcast's contemporaneous inventions argument provides only negligible support for a finding of obviousness. While the prior art Comcast cites is close, the combinations do not clearly and convincingly evidence simultaneous invention in such a manner that has a perceptible impact on the obviousness calculus.

*(e) Weighing the Secondary
Consideration Factors*

On the whole, the administrative law judge has determined that Rovi's weak Showing of commercial success provides weak support for finding that the '263 and '413 Patents are not obvious. The evidence cited by Comcast is negligible and does not have a perceptible impact on the obviousness calculus.

c) Indefiniteness

Comcast argues:

Claims 1 and 14 of the '263 Patent, claim 1 of the '413 patent, and claims 10 and 15 ('Asserted System Claims') are invalid for indefiniteness because each of these claims recite elements of an apparatus and a method for using that apparatus. . . . A single claim that recites both a system and the method for using that system is invalid under 35 U.S.C. § 112 because it does not apprise a POSITA of its scope. *See IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005).

Resps. Br. at 158.

Rovi argues:

. . . The use of a “gerund (*e.g.*, transmitting, receiving)” with an apparatus claim does not inherently make the claim indefinite. *See Certain Network Devices, Related Software & Components Thereof* Order No. 13, USITC Inv. No. 337-TA-944 (July 28, 2015) (Shaw, ALJ). And, as the Federal Circuit articulated, “apparatus claims are not necessarily indefinite for using functional language” and “if an apparatus claim is clearly limited to a[n apparatus] possessing the recited structure and capable of performing the recited functions, then the claim is not invalid as indefinite.” *UltimatePointer, LLC v. Nintendo Co., Ltd.*, 816 F.3d 816, 826 (Fed. Cir. 2016) (internal quotations omitted). . . .

Rovi Br. at 108.

The administrative law judge has determined that claims 1 and 14 of the '263 Patent, claim 1 of the '413 patent, and claims 10 and 15 of the '801 patent are not indefinite “hybrid” claims. The phrases that Comcast identifies modify the claimed systems rather than activities of a user. *See UltimatePointer, L.L.C., v. Nintendo Co.*, 816 F.3d 816, 826 (Fed. Cir. 2016) (“If an apparatus claim is clearly limited to an apparatus possessing the recited structure and capable of performing the recited functions, then the claim is not invalid as indefinite.” (citation and quotation-alteration brackets omitted); *see also HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270, 1277 (Fed.

Cir. 2012) (finding claims not indefinite where the limitations established “the underlying network environment in which the mobile station operates.”). Thus, the administrative law judge finds that the challenged claims are not indefinite hybrid claims.

C. U.S. Patent No. 8,046,801

1. Overview of the '801 Patent (JX-0003)

The '801 Patent, entitled “Interactive television program guide with remote access,” issued on October 25, 2011. The '801 Patent is a continuation of U.S. Patent Application No. 09/354,344, and it claims the benefit of U.S. Provisional Application No. 60/097,527, filed August 21, 1998, and U.S. Provisional Application No. 60/093,292, filed July 17, 1998. The '801 Patent shares “essentially the same specification” as the '263 Patent and the '413 Patent. *See* Resps. Br. at 63; *see also* Rovi Br. at 41 (explaining the patents “stem from a common, parent application filed on July 16, 1999”). The '801 Patent relates to interactive television guide programs that operate on local devices, such as a set-top box, and remote devices, such as a laptop or mobile phone.

2. Claim Construction

a) Level of Ordinary Skill in the Art

The parties address the level of ordinary skill for the '263, '801, and '413 Patents together. *See* Rovi Br. at 42; Resps. Br. at 70.

The administrative law judge already determined that a person having ordinary skill in the relevant art would have a bachelor's degree in computer science, electrical engineering, computer engineering, or a similar discipline and two to four years of experience

or familiarity with computer networks, graphical user interfaces, and the associated computer software. *See* Section IV(B)(2)(a).

b) Disputed Claim Terms

(1) Recording by the local guide

The phrase “recording by the local guide” appears only in the claims (*i.e.*, claims 1, 5, 10, 15, 19, 23, 28, 33, 37, 41, 46, and 51). The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
recording by the local interactive television program guide equipment on which the local interactive television program guide is implemented	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 52; Resps. Br. at 79-81.

Rovi’s argument, which is comingled with three other disputed phrases, follows:

One of ordinary skill in the art would agree with Rovi’s proposed construction—“recording by the local interactive television program guide equipment on which the local interactive television program guide is implemented.” CX-0002C (Shamos WS) at Q/A 121, 123. As discussed above at Sections V(C)(2)(b)-(d), there is no

geographic limitation regarding the local guide. Rovi's construction for this term is consistent with its use in the specifications of the Patents. *See* JX-0002 ('263 Patent) at col. 11, lns. 4-44, col. 12, lns. 10-13, col. 17, lns. 48-50, col. 24, lns. 36-39.

As with the "local" interactive television program guide term, Respondents' proposed construction again imposes a geographical limitation by limiting the recording to being "initiated" by the local interactive program guide (which in turn, according to Respondents, must be located solely inside a user's home). *Resps. P.H. Br.* at 196-98. The word "initiates" does not appear anywhere in the intrinsic record of the Patents. Moreover, there is no requirement that the equipment within the users' home initiate the recording as Respondents' construction would require. Within the claims, it is: (a) the user of the remote guide who requests a recording; (b) the remote guide which communicates the recording request to the local guide; and (c) the local guide which records the television program. *See* CX-0002C (Shamos WS) at Q/A 122 (explaining additional intrinsic evidence in support of Rovi's construction). Respondents are improperly attempting to introduce causal and geographical limitations into the claims.

Rovi Br. at 53-54.

Comcast's entire argument, which is comingled with five other disputed phrases, follows:

Comcast's proposed constructions are consistent with the intrinsic evidence. In every embodiment disclosed in the patent specification, it is the guide software that initiates the recording. *See, e.g.*, JX-0002 ('263 Patent) at 12:19-22, 17:54-59, 24:36-39, and 24:44-51. This repeated aspect of the specification is recognized in Comcast's proposed constructions.

Rovi takes issue with the word "initiates" in Comcast's constructions and argues that the *remote guide* could also be said to "initiate" a recording when it remotely requests a recording. *See, e.g.*, CX-0002C (Shamos WS) at Q/A 122. While it is true that the remote guide communicates a scheduling request, in every embodiment in the patent it is the *local guide* which receives this request from the remote guide and it is the *local guide* that actually initiates the recording. *See, e.g.*, JX-0002 at 12:19-22, 17:54-59, 24:36-39, and 24:44-51.

Rovi's constructions, on the other hand, do nothing more than rearrange the words of the limitation and, therefore, do not explain their meaning. Further, for the "recording by [a/the] local interactive television program guide," limitation Rovi inserts the concept of the local guide *equipment* to a limitation that otherwise

did not contain it. By inserting the local guide equipment into this construction, Rovi excludes an embodiment described in the specification where the local guide records a program on a program guide server. *See id.* at 24:44-51.

Furthermore, by changing the claim term to only require that equipment perform the recording, Rovi would remove the local guide entirely from the process of recording. In other words, under Rovi's construction, the *local guide* need not be involved at all in the recording, only the *equipment* on which the local guide is implemented. This changes the meaning of the claim term.

Resps. Br. at 79-81.¹⁰⁸

Comcast replies, for all of the “recording terms,” as follows:

¹⁰⁸ The six terms to which this argument applies are: “(1) ‘recording by [a / the] local interactive television program guide,’ (2) ‘records the television program corresponding to the selected program listing responsive to the communication using the local interactive television program guide equipment,’ (3) ‘records the television program corresponding to the selected television program listing using the local interactive television program guide equipment,’ (4) ‘recording by the local guide,’ (5) ‘responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment,’ and (6) ‘responsive to the communication, schedules the program corresponding to the selected program listing for recording at the appropriate time using the television equipment’ [which] are provided in RDX-0839 to RDX-0841.”).

Respondents' constructions merely clarify what is clear from the claims: the *local guide*, not something else, records the programs. Each of the claims recites either "recording by the local guide" or "records . . . using the local interactive television program guide." This plain language mandates a construction that it is the local guide that initiates the recordings.

Rovi has no meaningful response and instead alleges that Respondents are attempting to re-litigate the "inside a user's home" issue with these proposed constructions. *See* Compl. PoHB at 53-54. That is untrue. Respondents only litigate the issue regarding the proper meaning of "local guide" / "local interactive television program guide" once. If Respondents prevail, then of course the meaning of "local guide" / "local interactive television program guide" in these recording terms would have that same meaning. But if Respondents do not prevail, there is not a separate argument with these constructions that the local guide must be in the user's home. The issue with these constructions is whether the *local guide* (wherever it may be) performs the recordings. On that issue, Rovi presents no meaningful response.

Resps. Reply at 21.

The administrative law judge construes “recording by the local guide” to mean “recording by the local interactive television program guide equipment on which the local interactive television program guide is implemented.” Comcast has not presented a cogent argument, with sufficient intrinsic (Comcast does not cite the ’801 patent or its prosecution history) or extrinsic support, to warrant construing the phrase otherwise.

(2) Responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment

The phrase “responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment” appears only in claims 1 and 5 of the ’801 patent. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
responsive to the communication, scheduling for recording by the user equipment, using the local guide, the program corresponding to the selected program listing	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 56; Resps. Br. at 79-81.

Rovi’s entire argument for this phrase and the “responsive to the communication, schedules the

program corresponding to the selected program listing for recording at the appropriate time using the television equipment” phrase is:

One of ordinary skill in the art would agree with Rovi’s proposed construction—“responsive to the communication, scheduling for recording by the user equipment, using the local guide, the program corresponding to the selected program listing.” CX-0002C (Shamos WS) at Q/A 135. Rovi’s construction simply rearranges the phrases in the term itself making the intent of the original claim language easier to understand. CX-0002C (Shamos WS) at Q/A 136 (explaining additional intrinsic evidence in support of Rovi’s construction). Rovi’s construction is also supported by the specification of the Patents. JX-0003 (’801 Patent) at col. 38, lns. 29-33, col. 20, lns. 32-46. As with the “recording by the local guide terms,” Section V(C)(2)(h), *supra*, Respondents’ proposed construction improperly introduces the vague concept of “initiates” together with the geographical limitation of where that “initiation” occurs into the term.

Rovi Br. at 56.

Comcast does not brief this phrase separately. Resps. Br. at 79-80 (this is one of the six comingled arguments). In reply, Comcast adds:

The issues for these two terms are the same as the issues for the recording

terms, which is why Respondents briefed all six together. *See* Resp. PoHB at 79-81.

Resps. Reply at 22.

The administrative law judge construes “responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment” to mean “responsive to the communication, scheduling for recording by the user equipment, using the local guide, the program corresponding to the selected program listing.” The construction provides additional context for understanding the phrase without enlarging or narrowing the claim scope. Comcast has not presented a cogent argument, with sufficient intrinsic (Comcast does not cite the ’801 patent or its prosecution history) or extrinsic support, to warrant construing the phrase otherwise.

(3) Responsive to the communication, schedules the program corresponding to the selected program listing for recording at the appropriate time using the television equipment

The phrase “responsive to the communication, schedules the program corresponding to the selected program listing for recording at the appropriate time using the television equipment” appears only in claims 10 and 15 of the ’801 patent. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
responsive to the communication, schedules the program	Comcast does not clearly present a construction in

corresponding to the selected program listing for recording at an appropriate time using the television equipment	its post-hearing brief.
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See Rovi Br. at 56; Resps. Br. at 79-81.

Neither Rovi nor Comcast brief this phrase separately. *See* Rovi Br. at 56 (this phrase is briefed with the “responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment” phrase); Resps. Br. at 79-80 (this is one of the six comingled arguments).

In reply, Comcast adds:

The issues for these two terms are the same as the issues for the recording terms, which is why Respondents briefed all six together. *See* Resp. PoHB at 79-81.

Resps. Reply at 22.

The administrative law judge previously construed “responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment” to mean “responsive to the communication, scheduling for recording by the user equipment, using the local guide, the program corresponding to the selected program listing.”

Accordingly, the administrative law judge construes the phrase “responsive to the communication, schedules the program corresponding to the selected program listing for recording at the appropriate time

using the television equipment” to mean “responsive to the communication, schedules the program corresponding to the selected program listing for recording at an appropriate time using the television equipment.”

(4) Program guide information

The term “program guide information” appears throughout the claims and the specification. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
information necessary for remotely providing program guide functionality	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 55; Resps. Br. at 84.

Rovi’s entire argument follows:

One of ordinary skill in the art would agree with Rovi’s proposed construction—“information necessary for remotely providing program guide functionality.” CX-0002C (Shamos WS) at Q/A 127. This construction comes directly from the specification of the Patents. JX-0003 (’801 Patent) at col. 15, lns. 33-41; *see also* CX-0002C (Shamos WS) at Q/A 129 (explaining additional intrinsic evidence in support of Rovi’s construction).

Rovi Br. at 55.

Comcast's entire argument follows:

The party's [*sic*] proposed construction [*sic*] of "program guide information" are [*sic*] provided in RDX-0845. Comcast acknowledges that Rovi has pulled its construction directly from the specification, but the description Rovi relies on is for one particular embodiment where the local and remote program guides are sharing the same program guide information to enable the remote guide to remotely schedule a recording. Those of ordinary skill in the art would recognize that "program guide information" is also used by the local guide to generate a display that allows a user to locally schedule a program for recording whether or not there is a remote guide in the system. See RX-0007C (Wigdor WS) at Q/A 197. Thus, the word "remotely" in Rovi's construction improperly narrows the plain and ordinary meaning of "program guide information" to apply only to remote devices.

Resps. Br. at 84.

Comcast replies:

Program guide information can be used by either a local or a remote guide to provide program guide functionality. When used by a local guide, Rovi's construction would be nonsensical as the program guide information is necessary, but it is used to provide program guide

functionality *locally*, not *remotely* as required by Rovi's constructions.

Resps. Reply at 22.

The administrative law judge construes "program guide information" to mean "information necessary for remotely providing program guide functionality." The construction provides additional context for understanding the phrase without enlarging or narrowing the claim scope. Comcast has not presented a cogent argument, with sufficient intrinsic (Comcast does not cite the '801 patent or its prosecution history) or extrinsic support, to warrant construing the phrase otherwise.

(5) Remote server

The term "remote server" appears throughout the claims and the specification. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
server that provides program guide information	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 55; Resps. Br. at 84.

Rovi's entire argument follows:

One of ordinary skill in the art would agree with Rovi's proposed construction—"server that provides program guide information." CX-0002C (Shamos WS) at Q/A 133. This construction is based on the

specifications. JX-0003 ('801 Patent) at col. 3, lns. 34-38. The term “remote server” is used to refer to “program guide server 25” or “server 242” or “server 256” because no other servers are mentioned in the '801 specification. CX-0002C (Shamos WS) at Q/A 133 (explaining additional intrinsic evidence in support of Rovi’s construction). All three of those servers, according to the specifications, provide program guide information. *Id.*

Rovi Br. at 55.

Comcast’s entire argument follows:

The party’s [*sic*] proposed construction [*sic*] of “remote server” are [*sic*] provided in RDX-0846. There is no need to construe this limitation. Those of ordinary skill in the art would know that a remote server is a server that is located somewhere else. RX-0007C (Wigdor WS) at Q/A 200. This conclusion is also clear from the plain language of the claims. *Id.* at Q/A 202.

Resps. Br. at 84.

Comcast replies:

There is no need to construe this term and Rovi has not demonstrated why construction is necessary or helpful.

Resps. Reply at 22.

The administrative law judge construes the term “remote server” to mean “server that provides program guide information.” The construction provides

additional context for understanding the phrase without enlarging or narrowing the claim scope. Comcast has not presented a cogent argument, with sufficient intrinsic (Comcast does not cite the '801 patent or its prosecution history) or extrinsic support, to warrant construing the phrase otherwise.

3. Literal Infringement

Rovi asserts claims 1, 5, 10, and 15. Rovi Br. at 42. Rovi relies upon the same evidence and argument presented for claim 1 of the '263 Patent to argue that claims 1, 5, 10, and 15 are infringed. *See generally* Rovi Br., Section V(E)(1). For instance, the conclusion of Rovi's argument for the preamble of claim 1 of the '263 Patent is typical for its allegations that the X1 and Legacy products infringe the '801 patent:

The evidence and arguments made with respect to '263 claim element 1pre also show that the following claim elements are met by the Legacy system: '263 claim elements 14pre, 17pre; '413 claim elements 1pre, 10pre; and **'801 claim elements 1pre, 1a, 5pre, 5a, 10pre, 10a, 10c, 15pre, 15a, 15c**. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1599 (Legacy Guide Screenshots for the '413 Patent); CX-1602 (Legacy Guide Screenshots for the '801 Patent). CX-0002C (Shamos WS) at Q/A 242, 255, 263, 284, 299, 302, 312, 314, 324, 326, 330, 340, 342, 346."

See Rovi Br. at 66 (emphasis added).

Comcast presents two separate arguments for the accused X1 and Legacy products. *See generally* Resps. Br., Sections VIII(C)(2)(a)(vii), VIII(C)(2)(b)(vi) (the remaining sub-headings indicate Comcast's arguments are directed toward the '263, '413, and '801 Patents collectively or the '263 and '413 Patents together).

a) Claim 1

Dr. Shamos, Rovi's expert, presents his analysis for claim 1 in relation to six alphanumeric limitations (1pre, 1a, 1b, 1c, 1d, and 1e). *See* CX-0002C at Q/A 298-309. The subparts are presented, as follows:

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

[1a] 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;

[1b] 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;

[1c] transmitting, with the remote guide, a communication to the local guide identifying the program corresponding to the selected program listing via the Internet;

[1d] receiving the communication with the local guide; and

[1e] responsive to the communication, scheduling, with the local guide, the program corresponding to the selected program listing for recording by the user equipment.

See CX-0002C at Q/A 298-309.

(1) X1 System

Comcast argues:

Comcast's X1 platform does not infringe the limitations of every '801 patent claim related to receiving "program guide information" from the local guide. Rovi initially only alleged that the "program guide information" constituted information about scheduled recordings (*i.e.*, the "red dots") that Rovi alleged was received from the user's STB. *See, e.g.*, CDX-0328C.000157-161. As discussed below, this infringement theory presents multiple problems for Rovi and,

therefore, Dr. Shamos has backpedaled from it dramatically.

Resps. Br. at 99. Comcast then presents its “local guide” claim construction arguments again and argues that it does not infringe because its client applications do not obtain program listings from the “local guide.”

Id. Comcast argues:

The archetecgture [*sic*] used by Rovi providing program guide information to the remote guide and the local guide from a “centralized location” was disclosed in the specification, but is an unclaimed embodiment. Fig. 2a of the patent shows that the program guide information is transmitted from the headend to the user equipment and from the user equipment to the remote device. Tr. 213:3-22. This is the embodiment recited in the claims. *See id.* at 215:1-12. Fig. 2b, on the other hand, discloses an embodiment where the .program guide information is transinitted directly not only to the user equipment, but also to the remote device. *See id.* at 213:23-214:25. The important distinction here is that in Fig. 2b, the remote device’s source of the program guide information is not the user equipment. *See id.* at 215:13-216:6.

Id. at 102.

In claim 1, “program guide information” is found only in limitation 1a. *See* CX-0002C at Q/A 300. Dr. Shamos explained that the accused X1 products satisfy limitation 1a, as follows:

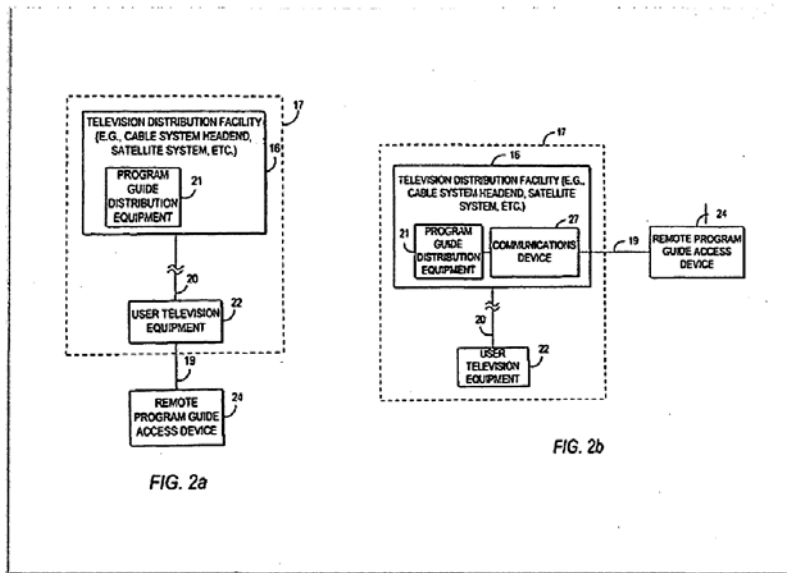
Q301. How is this element met by the X1 system?

A. The same reasoning and evidence cited for '263 1pre, 1a, 1b, and 1c apply here. In the X1 system, the program guide information is received over HTTP on the bottom row of the figure in CX-1791 and CDX-305C.2. The remote guide has no source of information other than what it receives over HTTP.

Id. at Q/A 301.

The administrative law judge has determined that claim 1 is not infringed. Limitation 1a requires, in pertinent part, the remote guide to generate a display using program guide information from a local guide that is implemented on user equipment located at a user site. *See* JX-0003 at 40:8-15. At the hearing, Dr. Shamos testified that Figs. 2a and 2b were different embodiments that differ in their relationship to user television equipment (22). Tr. 213-219.

These are the figures:



JX-0003 at 11-12.

Rovi has not sufficiently shown that the accused X1 system includes a remote device that receives program guide information from a local guide implemented on user equipment (*e.g.*, a set-top box and television) located at a user site, via the Internet. *See generally* CX-0002C at Q/A 301 (the “reasoning and evidence cited for ’263 1pre, 1a, 1b, and 1c” does not address “program guide information” from a local guide located at a “user site”). Accordingly, the administrative law judge finds that the accused X1 system does not infringe claim 1 of the ’801 Patent.

(2) Legacy System

Rovi has not presented a separate argument for the Legacy system. *See generally* Rovi Br., Section V(E)(1). Rovi's reply provides:

The parties agree that the disputes regarding the X1 and Legacy Accused Products are “essentially the same” and/or “exactly the same.” Resps. Br. at 103-04. The parties also agree that the disputes regarding the DI Products contain “the same issue[s] as with infringement.” Resps. Br. at 114-15. Thus, because the X1 Accused Products infringe, the Legacy Accused Products should be found to infringe. *Id.* at 103-04; Compls. Br. at 60-85 (discussing infringement by both the X1 and Legacy systems). Similarly, because the Accused Products infringe, the DI Products should be found to practice the Asserted Claims. Resps. Br. at 114-15; Compls. Br. at 95-108 (discussing the DI Products' practice of the Asserted Claims).

Rovi Reply at 38-39.

Comcast argues:

Comcast's Legacy platform does not infringe any asserted claim of the '801 patent because the remote guide does not receive “program guide information” from the lcal [*sic*] guide. The dispute here is essentially the same as for the X1 system. *See* § VII.C.2.a.i.(7) [*sic*]. The

only material difference between X1 and Legacy STBs for this issue is that, in the Legacy platform, the source of scheduled recordings is the [] server, rather than the []. But, in any event, the source is still not the guide software or anything on the STBs, and, is therefore not the “local guide” under Comcast’s construction or the reasonable view of Rovi’s construction of “local guide.”

Resps. Br. at 104.

Rovi has not sufficiently shown that the accused X1 system includes a remote device that receives program guide information from a local guide implemented on user equipment (*e.g.*, a set-top box and television) located at a user site, via the Internet. *See generally* CX-0002C at Q/A 301-302 (the “reasoning and evidence cited for ’263 1pre, 1a, 1b, and 1c” does not address “program guide information” from a local guide located at a “user site”). Accordingly, the administrative law judge finds that the accused Legacy system does not infringe claim 1 of the ’801 Patent.

b) Claims 5, 10, and 15

The administrative law judge determined that Comcast does not infringe claim 1 (above). The administrative law judge has determined that Comcast does not infringe claims 5, 10, and 15. Neither Rovi nor Comcast presents separate, substantive argument as to whether Comcast does or does not infringe claims 5, 10, and 15. Accordingly, the administrative law judge finds that Comcast does not infringe claim 5, 10, and 15 for the same reasons it does not infringe claim 1.

c) Comcast's Additional Non-Infringement Arguments

Comcast's alternative designs arguments are predominately directed to the '263 and '413 Patents. *See* Resps. Br. at 104-06. For the '801 Patent, Comcast argues:

As a second alternative design, even under Rovi's view of the scope of "local guide," Comcast could also entirely remove the ability to remotely schedule a recording from the accused mobile/client applications and thereby avoid Rovi's infringement allegations for all three of the Remote Access patents. RX-0850C at Q/A 221; Tr. 198:2-22. Removing this entire feature could be eliminated as easily as the other alternative designs. RX-0850C at Q/A 222.

Id. at 105.

Assuming the '801 Patent is found infringed, then the administrative law judge's determination with respect to Comcast's second alternative design from Section IV(B)(c)(1) (*i.e.*, that Comcast cannot avoid infringement simply because there may be alternative ways to use the accused products) also applies here.

4. Indirect Infringement

In the event that the accused products are found to infringe the '801 Patent, the administrative law judge has analyzed Rovi's inducement and contributory infringement arguments.

Rovi does not present a separate argument for the '801 Patent. *See generally* Rovi Br., Sections V(E)(4),

V(F) (the '263, '801, and '413 Patents are addressed collectively).

Comcast generally presents a joint argument for the '263, '801, and '413 Patents. *See generally* Resps. Br., Section VIII(C). For the '801 Patent, Comcast adds:

For the '801 patent, all of the claims recite the “program guide information” limitations. RX-0850C at Q/A 81. To infringe any of the asserted claims of the '801 patent, the “remote guide” must “generate[] . . . a display . . . based on program guide information received from a local guide” or similar claim language. *Id.* And the user must then make a selection from the display generated based on program guide information received from the local guide. *Id.* If Rovi is going forward with its “red dot” infringement theory, which they do not, the spreadsheets provided by Peter Nush merely show that remote recordings have occurred, not that there were actually any scheduled recordings visible on the display before the user made a program selection. RX-0839C at Q/A 42. Therefore, the Peter Nush spreadsheets fail to demonstrate *any* instance of direct infringement of the '801 patent.

Resps. Br. at 108.

a) Knowledge of the '801 Patent and Specific Intent to Infringe

The administrative law judge finds that Comcast had the requisite intent and knowledge of the '801 Patent for the same reasons provided in the discussion of the '263 Patent above. *See* Section IV(B)(5)(a).

b) Induced Infringement of the '801 Patent

(1) Comcast's Customers

Rovi has not sufficiently shown that customers actually utilize the accused X1 or Legacy products in an infringing manner. *See Epcon Gas Sys., Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1033-34 (Fed. Cir. 2002) (explaining the rule that “[u]pon a failure of proof of direct infringement, any claim of inducement of infringement also fails” and then reversing summary judgment of no infringement based upon evidence that the defendant demonstrated the product to prospective buyers). In particular, Rovi has not sufficiently shown that a customer uses a remote device within the accused systems in a manner that receives program guide information from a local guide implemented on user equipment (*e.g.*, a set-top box and television) located at a user site, via the Internet. *See generally* CX-0002C at Q/A 301-302 (the “reasoning and evidence cited for '263 1pre, 1a, 1b, and 1c” does not address “program guide information” from a local guide located at a “user site”). Thus, the administrative law judge finds that Comcast has not induced its customers to infringe claims 1, 5, 10, and 15.

(2) Comcast's Suppliers

Comcast has not argued or shown that ARRIS or Technicolor practice the method recited in claim 1. *See generally* Rovi Br., Section V(E)(4) (Rovi's arguments

focus on use of a remote device, which is not attributed to manufacturers). Accordingly, the administrative law judge finds that Comcast has not induced ARRIS and Technicolor to infringe claims 1, 5, 10, and 15.

c) Contributory Infringement of the '801 Patent

As with the '263 Patent, the administrative law judge has determined that Rovi has fallen short of meeting its burden of showing that the accused products have no substantial non-infringing uses; rather, the evidence shows that there are many substantial non-infringing uses of the accused set-top boxes and their corresponding ecosystem. The administrative law judge finds the ARRIS and Technicolor do not contributorily infringe claims 1, 5, 10, and 15 of the '801 Patent for the same reasons they do not contributorily infringe the asserted claims of the '263 Patent. *See* Section IV(B)(5)(c).

5. Domestic Industry – Technical Prong

Rovi does not clearly identify which claims of the '801 Patent are practiced by the domestic industry products. *See generally* Rovi Br., Section V(G). Rather, Rovi explains:

For purposes of brevity, Rovi refers to the '263 Patent claim elements below and indicate relevant claim elements of the '413 and '801 patents wherever the same evidence is applicable in showing whether the claim element has been met. Relevant claim language as to all claims is provided in full at CDX-0307C (CX-0002C (Shamos WS) at Q/A 383-433).

Rovi Br. at 97. For instance, the conclusion of Rovi's argument for the preamble of claim 1 of the '263 Patent is typical for the Rovi (i-Guide, Passport, and TotalGuide xD) and Verizon FiOS domestic industry products:

The evidence and arguments made with respect to '263 claim element 1pre also show that the following claim elements are met by the Rovi systems: '263 claim elements 14pre, 17pre; '413 claim elements 1pre, 10pre; and **'801 claim elements 1pre, 1a, 5pre, 5a,** [sic] **10pre, 10a, 10c, 15pre, 15a, 15c.** CX-0002C (Shamos WS) at Q/A 434-35, 444-45, 452-53, 474-75, 488-89, 490-92, 504-07, 516-19, 522-23, 532-35, 538-39.

Rovi Br. at 98 (emphasis added).

For the '801 Patent specifically, Comcast argues: [] Resps. Br. at 116.

Mr. Thomas, who is also a named inventor on the '263, '801, and '463 Patents, testified, as follows:

Q. [

A.

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Q.

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Q.

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A.

]

JX-0118C at 39:11-41:18, 87:7-22, 88:9-89:25.

For the Verizon FiOS products, as with infringement, Rovi relies upon the same evidence and argument presented for claim 1 of the '263 Patent to argue that the Verizon FiOS products practice claims 1, 5, 10, and 15 of the '801 Patent. *See generally* Rovi Br., Section V(G)(2). The administrative law judge finds that Rovi has not sufficiently shown that the Verizon products include a remote device that receives program guide information from a local guide implemented on user equipment (*e.g.*, a set-top box and television) located at a user site, via the Internet.

See generally CX-0002C at Q/A 391, 397 (the “remote access link” is not explained in enough detail). Accordingly, the administrative law judge finds that the Verizon products do not practice claim 1 of the ’801 Patent.

In sum, the administrative law judge has determined that the evidence shows that Rovi’s domestic industry products (i-Guide and Passport) and the Verizon FiOS system do not practice claims 1, 5, 10, and 15 of the ’801 Patent.

6. Patent Eligibility

Comcast does not present a separate § 101 argument for the ’801 Patent. *See generally* Resps. Br., Section VIII(E)(7) (arguing that claim 1 of the ’263 Patent is representative). The administrative law judge finds that the asserted claims of the ’801 Patent are not directed to ineligible subject matter for the same reasons that claim 1 of the ’263 Patent is not directed to ineligible subject matter.

7. Validity

a) Anticipation

For the avoidance of doubt that may arise from the parties’ briefs, the administrative law judge notes that Comcast does not argue that any of the many references it presents anticipate the ’801 Patent. *See generally* Resps. Br., Section VIII(E); *see also* Joint Outline at 8-9. Rather, for the ’801 Patent, Comcast argues:

- “The asserted claims of the ’801 patent were at least obvious in view of Kondo and Humpleman.” Resps. Br. at 117 (citing RX-0007C (Wigdor WS) at Q/A 232).

- “The asserted claims of the ’801 patent were at least obvious in view of Blake and Humpleman.” Resps. Br. at 133 (citing RX-0007C (Wigdor WS) at Q/A 295).
- “The asserted claims of the ’801 patent were at least obvious in view of Shteyn and Humpleman.” Resps. Br. at 142 (citing RX-0007C (Wigdor WS) at Q/A 350).
- “The asserted claims of the ’801 patent were at least obvious in view of Sato, Young, and Humpleman.” Resps. Br. at 148 (citing RX-0007C (Wigdor WS) at Q/A 397).

Comcast’s obviousness arguments are addressed below.

b) Obviousness

(1) Kondo (RX-0245), in view of Humpleman (RX-0224)

Comcast argues:

The only features that are even arguably missing from Kondo are the use of “user profiles” to create the display on the remote guide (for the ’263 Patent and ’413 patent) and providing program guide information to the remote guide from the local guide (for the ’801 patent). These features, however, even if not explicitly disclosed by Kondo, were well known in the relevant art and would have been obvious to apply to the system of Kondo, as explained below.

Resps. Br. at 117. Comcast adds:

Humpleman discloses a system where a household contained several devices that could communicate with each other through accessing HTML pages. *See* RX-0224.0021 at 1:21-25; 2:46-63. One of the uses Humpleman envisioned for these devices was sharing program guides between the various devices. *See* RX-0224.0031 at 22:50-23:39.

Rovi's reply does not address Comcast's argument, for the '801 Patent, for Kondo. *See generally* Rovi Reply, Section VI(G).

The evidence shows that Humpleman teaches a home network system that satisfies the "remote guide based on program guide information received from a local guide implemented on user equipment." *See* RX-0007C at Q/A 274-75, 335-36, 383-84, 447-48 (Dr. Wigdor presents duplicative testimony about Humpleman).

Dr. Wigdor, however, does not explain how or why one of ordinary skill in the art would assemble Kondo and Humpleman to solve a problem from the art, or why one of ordinary skill in the art would modify Kondo, the primary reference. *See Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013) ("Where, as here, the necessary reasoning is absent, we cannot simply assume that 'an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.'").¹⁰⁹

Accordingly, the administrative law judge has determined that Comcast has not shown, through

¹⁰⁹ *See* n.92, *supra*

clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the Kondo and Humpleman references.

(2) *Blake (RX-0269), in view of
Humpleman (RX-0224)*

As determined above, the evidence shows that Humpleman teaches a home network system that satisfies the “remote guide based on program guide information received from a local guide implemented on user equipment.” See RX-0007C at Q/A 274-75, 335-36, 383-84, 447-48 (Dr. Wigdor presents duplicative testimony about Humpleman).

Dr. Wigdor, however, does not explain how or why one of ordinary skill in the art would assemble Blake and Humpleman to solve a problem from the art, or why one of ordinary skill in the art would modify Blake, the primary reference. See *Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”).¹¹⁰

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the Blake and Humpleman references.

(3) *Shteyn (RX-0265), in view of
Humpleman (RX-0224)*

As determined above, the evidence shows that Humpleman teaches a home network system that satisfies the “remote guide based on program guide

¹¹⁰ See n.92, *supra*.

information received from a local guide implemented on user equipment.” See RX-0007C at Q/A 274-75, 335-36, 383-84, 447-48 (Dr. Wigdor presents duplicative testimony about Humpleman).

Dr. Wigdor, however, does not explain how or why one of ordinary skill in the art would assemble Shteyn and Humpleman to solve a problem from the art, or why one of ordinary skill in the art would modify Shyten, the primary reference. See *Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”).¹¹¹

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the Shteyn and Humpleman references.

(4) *Sato (RX-0264), in view of
Humpleman (RX-0224)*

As determined above, the evidence shows that Humpleman teaches a home network system that satisfies the “remote guide based on program guide information received from a local guide implemented on user equipment.” See RX-0007C at Q/A 274-75, 335-36, 383-84, 447-48 (Dr. Wigdor presents duplicative testimony about Humpleman).

Dr. Wigdor, however, does not explain how or why one of ordinary skill in the art would assemble Sato and Humpleman to solve a problem from the art, or why one of ordinary skill in the art would modify Sato,

¹¹¹ See n.92, *supra*.

the primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”).¹¹²

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the Sato and Humpleman references.

(5) *Sato (RX-0264), in view of Young (RX-0253) and Humpleman (RX-0224)*

As determined above, the evidence shows that Humpleman teaches a home network system that satisfies the “remote guide based on program guide information received from a local guide implemented on user equipment.” *See* RX-0007C at Q/A 274-75, 335-36, 383-84, 447-48 (Dr. Wigdor presents duplicative testimony about Humpleman).

Dr. Wigdor, however, does not explain how or why one of ordinary skill in the art would assemble Sato, Young, and Humpleman to solve a problem from the art, or why one of ordinary skill in the art would modify Sato, the primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”).¹¹³

¹¹² *See* n.92, *supra*.

¹¹³ *See* n.92, *supra*.

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the Sato, Young, and Humpleman references.

(6) Secondary Considerations

Neither Rovi nor Comcast have presented separate secondary-consideration arguments, *i.e.*, apart from the '263 and '413 Patents, for the '801 Patent. *See generally* Rovi Br., Section V(H)(3); Resps. Br., Section VIII(E)(5). Accordingly, neither Rovi nor Comcast have shown that the secondary considerations support or negate an obviousness determination.

c) Indefiniteness

The Joint Outline presents an issue of indefiniteness for the '801 Patent. *See* Joint Outline at 9. Comcast's brief does not clearly address whether claims of the '801 Patent are indefinite. *See generally* Resps. Br. at 158-60. If Comcast has not presented a separate argument, then the claims of the '801 Patent are not indefinite for the same reasons the '263 Patent's asserted claims are not indefinite. To the extent that this is a separate argument, the administrative law judge finds that Comcast has fallen short of demonstrating that the claims of the '801 patent are indefinite.

D. U.S. Patent No. 8,566,871

1. Overview of the '871 Patent (JX-0004)

The '871 Patent, entitled "Multiple interactive electronic program guide system and methods," issued on October 22, 2013. The application that would issue as the '871 Patent, Application No. 11/182,081, was

filed on July 15, 2005. The '871 Patent claims the benefit of several applications, the earliest of which is a provisional application, 60/094,564, which was filed on July 29, 1998. *See* JX-0004 at 1:7-19. The '871 Patent discloses a system for managing and displaying multiple IPGs. *Id.* at 1:23-25.

Comcast has introduced the '871 Patent as a patent that “aggregates multiple types of events from different IPGs . . . into a single listing.” *See* Tr. 37.

2. Claim Construction

a) Level of Ordinary Skill in the Art

Rovi's entire argument is:

One of ordinary skill in the art would have a bachelor's degree in electrical engineering, computer engineering, or computer science, and two to three years of experience relating to electronic content delivery, such as experience with cable or satellite television systems, set-top boxes, multimedia systems or electronic program guides, or any equivalent knowledge, training, and/or experience. CX-0004C (Delp WS) at Q/A 42-44.

Rovi Br. at 202-03.

Comcast's entire argument is:

A POSITA of the '871 Patent as of Rovi's proposed date of invention would have a bachelor's degree in computer science, electrical engineering, computer engineering, or a similar discipline, and at least two to three years of experience

or familiarity with electronic program guides, television video signal processing, graphical user interfaces, and associated computer software. In the alternative, a POSITA of the '871 Patent could have equivalent experience either in industry or research, such as designing, developing, evaluating, testing, or implementing the previously mentioned technologies.

Resps. Br. at 232.

In view of the expert testimony and consensus between the parties, the administrative law judge has determined that a person having ordinary skill in the relevant art would have a bachelor's degree in electrical engineering, computer engineering, or computer science, and two to three years of experience relating to electronic content delivery, such as experience with cable or satellite television systems, set-top boxes, multimedia systems or electronic program guides, or any equivalent knowledge, training, and/or experience. *See* CX-0004C (Delp WS) at Q/A 42-44.

b) Disputed Claim Terms

(1) Preamble

The preamble of claim 12, the only claim asserted from the '871 Patent, is: "12. A system for displaying interactive electronic program guides, the system comprising[.]" JX-0004 at 26:32-33. The parties have proposed that:

Rovi's Preamble Proposal	Comcast's Preamble Proposal
The preamble is not limiting. No construction is necessary.	“Comcast’s proposed constructions for the preamble and the terms containing the phrase ‘in the household,’ reflect the understanding of a POSTIA that the claimed ‘interactive electronic program guides’ or ‘first and second interactive electronic program guides’ within the ‘system’ referred to in the preamble are executed and embodied in a household in a single STB, and not on remote hardware located, in a cable system headend.”

See Rovi Br. at 203-04; Resps. Br. at 235.

Rovi argues:

The preamble of claim 12—the only independent claim of the '871 Patent at issue in this Investigation—is not limiting. Presumptively, a preamble is not limiting. . . . Here, the preamble of claim 12 recites only: “A system for

displaying interactive electronic program guides, the system comprising . . .” This language recites no “essential structure or steps”—those are found in the body of the claim. Instead, the claim only recites the purpose of the invention—displaying IPGs—and nothing more.

To the extent the preamble of claim 12 is considered limiting, it should be construed with its plain and ordinary meaning. Respondents contend that the preamble requires the claimed electronic program guides to be “embodied in a single set-top box.” But nothing in the preamble (or elsewhere in the claim language) requires the multiple electronic program guides to be embodied in a single set-top box. CX-0004C (Delp WS) at Q/A 97. To the contrary, the intrinsic evidence expressly provides for IPGs residing in more than one set top box. CX-0004C (Delp WS) at Q/A 97; JX-0004 (’871 Patent) at col. 3, lns. 28-33 (***“IPGs may reside in multiple electronic devices or set top boxes.”***); Rinard Tr. 835. Respondents and their expert dismiss this clear disclosure of an embodiment with multiple electronic program guides in separate set top boxes by referring to Figure IB and different preferred embodiments. See RX-0849C (Rinard RWS) at Q/A 36. But those embodiments are exemplary, not mandatory, and the

intrinsic evidence expressly discloses a multiple set top embodiment, each with its own program guide, which falls within the plain language of the preamble. CX-0004C (Delp WS) at Q/A 97; JX-0004 ('871 Patent) at col. 3, lns. 28-33, col. 6, lns. 22-24; Rinard Tr. 835. If the term “interactive electronic program guides” in the preamble is construed, it should not be limited to guides “embodied” in a single set top box.

Rovi Br. at 203-04 (emphasis added).

Comcast argues:

Comcast’s proposed constructions for the preamble and the terms containing the phrase “in the household,” reflect the understanding of a POSTIA that the claimed “interactive electronic program guides” or “first and second interactive electronic program guides” within the “system” referred to in the preamble are executed and embodied in a household in a single STB, and not on remote hardware located, in a cable system headend. Rovi’s assertion that the preamble to Claim 12 is not limiting and needs no construction is incorrect. The preamble sets forth the “interactive electronic program guides” or “first and second interactive electronic program guides” limitations that are referred to throughout the body of the claims. In the body of the claims, the guides first referred to in the claim preamble are

further defined. Claim 12 confirms that the IPG application must be executed and embodied in the household instead of on remote hardware located at a headend: “the first and second interactive electronic program guides in the household.” Comcast’s construction is not only supported by the claim language but is supported by the specification as well. The ’871 Patent specification emphasizes that a multiple IPG system with “first and second interactive electronic program guides” is embodied in a single STB. *See, e.g.*, JX-0004 at Abstract. In fact, the specification distinguishes the prior art and summarizes the “present invention” on this basis. JX-0004 at 1:29-52, 1:61-66. Fig. IB of the ’871 Patent shows all elements of the claimed subject matter within a single STB, and the specification states, “Preferably, the multiple IPGs are embodied in a single STB.” JX-0004 at 3:20-21.

Dr. Delp’s witness statement cites the JX-0004 at 6:20-24, apparently in support of his position that the patent encompasses multiple IPGs being implemented in a multiple STB configuration. JX-0004 at 6:20-24; CX-0004C at Q/A 97. Contrary to Dr. Delp’s position, this excerpt refers to a configuration in which three, or more generally, several, sources are all delivered and distributed through a

single STB. Each source has its own IPG, with multiple IPGs on the same STB. This excerpt, and the surrounding context in the patent, support the position that the invention is limited to single STB configurations. Dr. Delp's also cites the '871 Patent at 3:20-34. But Fig. 1B of the '871 Patent shows all elements of the claimed subject matter within a single STB, and the specification states, "Preferably, the multiple IPGs are embodied in a single STB." JX-0004 at 3:20-21. In other words, despite Dr. Delp's suggestion that multiple sources correspond to multiple STBs, the '871 Patent makes clear that it supports multiple sources in a single STB.

The prosecution history shows that the claims in the '871 Patent application and related applications were allowed only when amended to restrict the claimed subject matter to an architecture in which the guides are each in a household (instead of a headend) and are incorporated in a memory and processor that "reside in a single electronic device." In the PTO's Notice of Allowance at page 2, the examiner expressly relied on and highlighted these limitations in his reasons for allowance: "the memory and the microprocessor reside in a single electronic device." JX-0011.007323-7329 (Oct. 20, 2002, Notice of Allowance).

Resps. Br. at 235-37 (JX-0011.007328 mentions a “single device” and a “local network”).

Rovi replies that Comcast cited the wrong Notice of Allowance¹¹⁴ and argues that there is “no support for the proposition that the prosecution history of the ’871 Patent somehow limited the claims to multiple guides embodied in a single STB.” Rovi Reply at 80-81.

The administrative law judge has determined that the preamble is not limiting and that no construction is necessary.

Comcast correctly notes that the Abstract describes a single set-top box. *See* JX-0004 at Abstract. Moreover, the Summary of the Invention also focuses on a single set-top box embodiment:

The present invention relates to a multiple IPG system. Embodied in a single set-top box, the system provides different TV programming and different IPGs to several different users respectively. The single set-top box is capable of providing programming and scheduling data to several different TV sets. Moreover, each of the different IPGs share some common data stored in a common database with each other. Therefore, a first IPG being viewed by a first user can display data added or modified via a second IPG by a second

¹¹⁴ The parenthesis in Comcast’s citation refers to an Oct. 20, 2002, Notice of Allowance. The preceding text, however, cites to the June 24, 2013 Notice of Allowance (JX-0011.007323-7329). The administrative law judge has reviewed the Notice of Allowance that begins at page 7318 of JX-0004.

user of the system. Furthermore, the data added or modified by the second user can influence the viewing rights of the first user. Also, all the competing and conflicting requests for limited resources, such as VCR scheduled recordings, are brought to the users' attention and displayed or prompted by the system.

Id. at 3:61-4:7. Further, the Background of the Invention offers that “there is a need for a multiple IPG system in a single set-top box or a single computer wherein the IPGs share some data and are capable of notifying users of any competing and conflicting resources. There is also a need for a centralized parental control over the multiple IPGs.” *Id.* at 1:53-57.

As Rovi correctly notes, however, the '871 Patent discloses an alternative embodiment where “the IPGs may reside in multiple electronic devices or set top boxes[.]” *Id.* at 3:28-30. This weighs against construing the preamble such that the system is limited to a single set-top box. *See SciMedLife Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344 (Fed. Cir. 2001) (finding disclaimer where the patentee explained that “***all embodiments*** of the present invention” had a coaxial lumen (emphasis added)); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 908 (Fed. Cir. 2004) (finding no disclaimer where the patentee explained that “[a]ccording to the principles of the present invention, there is provided an angiographic injector . . . [that can be loaded] through an opening that is provided in the front end of the pressure jacket” did not “disclaim the use of the invention in the absence of a pressure jacket.”).

Further, Comcast's arguments concerning the prosecution history are not supported by the evidence cited. Indeed, the Notice of Allowance cited does not contain the word "reside" or the term "single electronic device," and Comcast's errata to its post-hearing briefs did not correct this error (despite having the benefit of Rovi's reply).

(2) Event

The term "event" appears in the claims (*i.e.*, claims 1, 7-9, 11, 12, 18, 19, 20, 22, 23, 29-31, and 33) and throughout the specification. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
No construction is necessary. Alternatively, activity related to one or more programs.	"a designation of a scheduled function related to a television program, such as a reminder, a recording, a pay-per-view purchase, an automatic tune, or a show to be blocked"

See Rovi Br. at 204-05; Resps. Br. at 233.

Rovi's entire argument for this term follows:

Rovi and Respondents both state that no construction is necessary of the claim term "event"; however, the alternative constructions of the parties are different. CX-1702C (Corrected Joint ID of Disputed Claim Terms) at 37. Rovi's proposed alternative construction of

“event” is “activity related to one or more programs,” and Respondents’ proposed alternative construction is “a designation of a scheduled function related to a television program, such as a reminder, a recording, a pay-per-view purchase, an automatic tune, or a block.” *Id.* Rovi’s proposed construction is correct. No intrinsic evidence limits an “event” to a “designation of a scheduled function” such that actual activities are excluded. To the contrary, the ’871 Patent teaches that the term event encompasses more than mere designations, such as an actual activity related to one or more programs. CX-0004C (Delp WS) at Q/A 86-88; JX-0004 (’871 Patent) at col. 11, lns. 19-23. An event is not an isolated function like “record” or “purchase” that can be applied to a show. It is a function or “activity” applied to a *particular* show or program. If this term is construed, Rovi’s proposed alternative construction should be adopted.

Rovi Br. at 204-05.

Comcast argues:

The ’871 Patent specification and prosecution history support Comcast’s proposed construction, that an “event” is a designation of a scheduled function related to a television program, such as a reminder, a recording, a pay-per-view purchase, an automatic tune, or a show

to be blocked. Each and every relevant mention of the word “event” in the ’871 specification is clearly directed at the functions related to television programs that can appear on the Scheduled Events List. *See, e.g.*, JX-0004 (’871 Pat.) at 3:30-33 (“they would still share data such as an Scheduled Events List including, for example, an aggregate list for all individual recordings and series recordings, future PPV purchases, and scheduled tunes.”); JX-0004 at 11:19-22 (“Scheduled events (shows scheduled to record, watch or blocked) for each IPG can be stored in a single non-volatile memory such as an EEPROM (not shown) within the single STB.”).

The prosecution history shows that the claims in the ’871 Patent application were allowed only when amended to restrict the claimed subject matter to specific functions, such as scheduled recording or watching, instead of the transmission of data corresponding to any “activity” related to programs. JX-0011.005455-68 (June 23, 2009 Amendent [*sic*]) (amending claims 40 and 49 to replace receiving and generating a list of “program guide information” with receiving “events” and generating a list of “scheduled events.”). Thus, the language used by the applicant to define “events” in the patent specification and to distinguish prior art based on this claim language is more

precise than Rovi's proposed construction of "activity related to one or more programs, and should be used to construe the term "event."

Resps. Br. at 233.

Rovi replies:

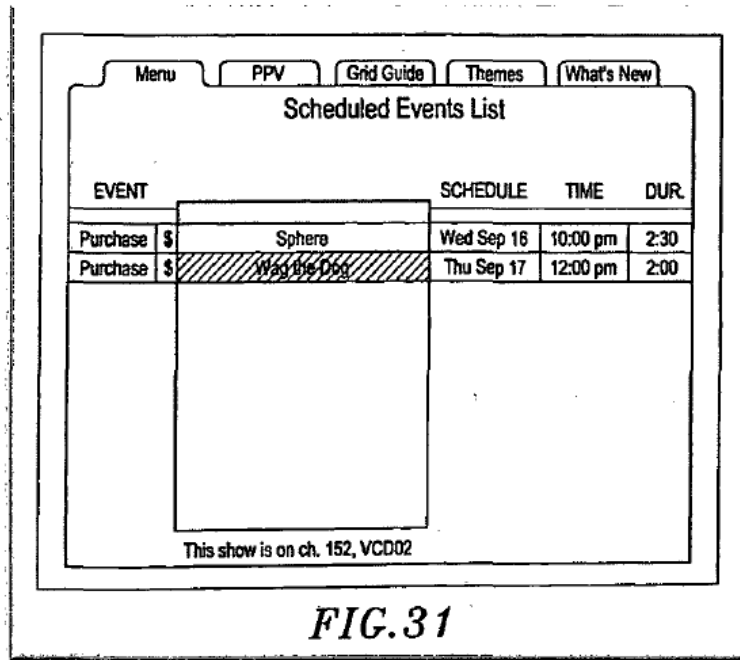
Respondents' proposed construction of "event" contradicts the intrinsic evidence; therefore, it cannot be correct. An "event" is not a designation of a scheduled function related to a television program, it is simply an activity related to one or more programs. CX-0004C (Delp WS) at Q/A 86-88; JX-0004 ('871 Patent) at col. 11, lines 19-22 (describing "events" as "shows scheduled to record, watch or blocked"), col. 27, lines 14-19 (claims 19 and 20). Respondents cite to the prosecution history of the '871 Patent, but neither the change in claim language nor its discussion by the applicant supports Respondents' proposed construction. JX-0011 ('871 Patent File History) at 5466-67 (discussing the significance of the relevant amendments as applied to Ellis without any distinction between "program guide information" and "events").

Rovi Reply at 79.

The administrative law judge construes "event" to mean "activity related to one or more programs." The claims indicate that "events" include:

- “programs scheduled to be recorded” (claims 8, 19, and 30);
- “series recordings, future pay-per-view purchases, and auto-tunes” (claims 9, 20, and 31); and
- “a purchased program” (claims 11, 22, and 33).

The specification indicates that “events” include “***individual recordings and series recordings***, future PPV purchases, and scheduled tunes.” JX-0004 at 3:32-33; 8:5-6 (emphasis added). The specification also indicates that a scheduled event includes “shows scheduled to record, watch or blocked[.]” *Id.* at 11:19-20. The specification also explains that figure 31 depicts “a television screen displaying a Scheduled Events List.” Figure 31 is reproduced immediately below:



Thus, the claims and the specification support Rovi's proposed construction that an event is an "activity related to one or more programs."

Comcast's construction is unduly restrictive, as it limits the claim scope only to examples provided in the '871 Patent. Further, Comcast's construction unnecessarily introduces the word "function." The specification uses the word "function" differently than the word "event." For example, in general, the specification uses the word "function" to describe schemes for controlling the television experience:

- "Each IPG includes a full menu system that allows the user to set up the IPG **functions** 'such as screen display position, and user preferences. An example of an IPG screen

function is the Adjust Display Position screen ***function.***” JX-0004 at 5:5-8 (emphasis added);

- “Decoding, error detection, and error correction ***functions*** are performed by the decoder 2.” JX-0004 at 7:15-17 (emphasis added);
- “FIG. 33 shows an example of a UI in each IPG for the VCHIP Plus+ ***functions.*** . . . The VCHIP Plus+ screens are accessed from the Menu bar; the user highlights the ‘VCHIP Plus+’ button on the menu bar, and then scrolls down to select from the menu of VCHIP Plus+ ***functions.***” JX-0004 at 10:44-58 (emphasis added);
- “A UI allows the users (parents) to pick their own passwords, and to disable the lockout when the passwords are lost. The ***functions*** of this UI include, but not limited to, the following:
 - (1) Fixed Overriding Password—This is hardwired in the equipment, and can always be used in case the user-defined password is lost.
 - (2) Repeating entry X times establishes new password—If the password is lost, the new password can be made by repeatedly entering the same password X number of times, and at the end of the process informing the user that the new password has been established.
 - (3) Power interruption after certain length of time allows new password to be entered—This allows the parent to “pull the plug” of the equipment and regain control after the password has been lost.

(4) Password review/re-entry through special service mode—By restricting that only the parents can access the special service mode, the password can be viewed safely in this way.”

JX-0004 at 11:48-67 (emphasis added); and

- “FIG. 35 is a flow chart of the master password operation. Obviously not all operations would require a password. As shown in block 391, the following operations have password protection: changing the password, changing the V-Chip ratings., deleting a ‘blocked’ program or deleting a ‘blocked’ channel, changing the ‘Babysitter’ **function**, unblocking a program or a channel within the ‘Babysitter’ **function**, changing the clock (this is because a different clock causes VCHIP Plus+ to block a different program), and changing the channel map (this is because a different channel map causes VCHIP Plus+ to block a different channel).” JX-0004 at 12:4-14 (emphasis added).

Thus, the intrinsic evidence does not support Comcast’s proposed construction.

(3) Interactive electronic program guide

The term “interactive electronic program guide” appears only in the claims (*i.e.*, claims 1-6, 10, 12-17, 21, 23-28, and 32). The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
guide that allows navigation through television program listings and causes display of program information on user television equipment ¹¹⁵	application that, when executed, causes television program listings to be presented to the user and enables the user to navigate through the program listings, to select an individual listing, and to select a function associated with the selected listing ¹¹⁶

See Rovi Br. at 205; Resps. Br. at 233-34.

Rovi's entire argument for this term follows:

. . .The '871 Patent describes an "interactive electronic program guide" as a specially-designed device with a user interface the user can see on the screen and interact with. CX-0004C (Delp WS) at Q/A 89-90; *see, e.g.*, JX-0004 ('871 Patent) at col. 4, lns. 20-24 ("Each IPG provides the user with an interface."). There does not appear to be much

¹¹⁵ This proposed construction is identical to Rovi's proposed construction for the "local interactive television program guide" claimed in the '263 Patent.

¹¹⁶ This proposed construction is identical to Comcast's proposed construction for the "local interactive television program guide" claimed in the '263 Patent.

substantive difference in the relevant application of the parties' constructions.

Rovi Br. at 205 (introductory text presenting the constructions is omitted).

Comcast's entire argument for this term follows:

With regard to the term "interactive electronic program guide," Rovi's proposed construction, "guide that allows navigation through television program listings and causes display of program information on user television equipment," is too broad. Rovi's expert Dr. Delp has opined that the guide is not software, but merely the user interface. CX-0004C at Q/A 90. Rovi's proposed construction converts program guide functionality into an abstract concept, divorced from any particular apparatus or system. This assertion by Rovi and its expert is directly contradicted by the '871 Patent specification, which describes the guide as an "application," *i.e.*, computer software that is implemented and executed on a processor. Thus, Comcast's proposed construction of "interactive program guide" as an "application that, when executed, causes television program listings to be presented to the user and enables the user to navigate through the program listings, to select an individual listing, and to select a function associated with the selected listing" is correct.

Resps. Br. at 233-34.

Rovi replies:

Respondents mischaracterize Rovi's position with regard to the claim term "interactive electronic program guide." Respondents assert that Dr. Delp opined that the guide is not software. Resps. Br. at 233. Dr. Delp never makes such a statement. Dr. Delp describes a guide as a user interface, but does not say that the user guide is not software. CX-0004C (Delp WS) at Q/A 89-90; JX-0004 ('871 Patent) at col. 4, lns. 20-24 ("Each IPG provides the user with an interface.").

Rovi Reply at 79.

The administrative law judge construes the term "interactive electronic program guide" to mean "guide that allows navigation through television program listings and causes display of program information on user television equipment."

Comcast's proposed construction relies upon Rovi's expert and unsupported argument. Further, Comcast's proposal of the phrases "application that, when executed, causes television program listings to be presented to the user and enables the user to navigate through the program listings, to select an individual listing, and to select a function associated with the selected listing" adds many unnecessary words that could needlessly limit the claim.

(4) User television equipment devices

The term "user television equipment devices" appears only in the claims (*i.e.*, claims 1, 10, 12, 21, 23, and 32). The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
user device for receiving remotely provided audio-visual television programming	This term does not need to be construed, but if it is construed, the evidence supports the construction “devices designed for viewing or recording television programs, such as TV sets, STBs, and VCRs.”

See Rovi Br. at 206; Resps. Br. at 235.

Rovi's entire argument for this term follows:

. . . As used in the '871 specification, user television equipment devices broadly connotes any user device for receiving remotely provided audio-visual television programming. CX-0004C (Delp WS) at Q/A 93-94; JX-0004 ('871 Patent) at col. 3, lns. 20-34.

Rovi Br. at 206 (introductory text presenting the constructions is omitted).

Comcast's entire argument follows:

This term does not need to be construed, but if it is construed, the evidence supports the construction “devices designed for viewing or recording television programs, such as TV sets, STBs, and VCRs.” The '871 Patent specification is consistent in equating user television equipment with devices

located in a household with capabilities for either displaying or recording television programs for a user. As shown in Figure 1A, user television equipment must be in the household and is different from any devices located at the headend, such as download server 60. And user equipment includes devices for displaying television programs. JX-0004 ('871 Pat.) at 3:23-28. The '871 Patent specification also indicates the user equipment can include devices for recording television programs, such as VCRs. *Id.* at 2:5-7, 3:65-67.

Resps. Br. at 235.

Rovi replies that “[t]he competing constructions of the parties are very similar; and, there does not appear to be a material difference (for the purposes of this Investigation) on the adopted construction.” Rovi Reply at 80.

Based on the similarities in constructions, Rovi’s assertion that there is not a material difference between the constructions, and the fact that the parties’ proposed constructions would not add meaning to the plain claim language, the administrative law judge has determined not to construe the term “user television equipment devices.”

(5) Located in a household

The phrase “located in a household” appears only in the claims (*i.e.*, claims 1, 12, and 23). The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
No construction is necessary. Alternatively, placeable in a household.	Comcast proposes that no construction is necessary, but if it is, then the construction is "kept and used at home."

See Rovi Br. at 206-08; Resps. Br. at 232.

Rovi's entire opening argument for this phrase follows:

The primary dispute between the parties is whether the claim phrases "located in a household" and "in the household" describe physical capabilities and characteristics of the user television equipment devices (as urged by Rovi) or a physical location where infringement occurs (as urged by Respondents). Rovi proposes that "located in a household" and "in the household" should be construed to mean "placeable in a household." Respondents contend that each phrase need not be construed, or in the alternative, should be construed in accordance with their plain and ordinary meaning which is alleged to be "kept and used at home."

Intrinsic evidence makes clear (and there is no dispute in the record) that the patentee used the phrase "in the household" in a particular manner with a clear, articulated meaning.

Uncontroverted evidence shows that the patentee added the “in the household” to distinguish between head-end distribution equipment and household equipment like set top boxes. JX-0011 (’871 Patent File History) at 5466 (distinguishing between the receipt of program guide information from a television distribution facility and interactive electronic program guides); Delp Tr. 981, 1024-25 (“They were talking about equipment that was placeable in the household and not equipment that was located at the cable headend, or the distribution center.”). The context of “in the household” phrase confirms its usage by the patentee: “a plurality of *user television equipment devices* that are located *in a household* and *from which first and second electronic program guides are accessible.*” JX-0004 (’871 Patent) at col. 26, lns. 34-36 (emphasis added). Given the clear statements in the intrinsic evidence, one of ordinary skill in the art would understand that the phrase “located in a household” is akin to a statement of intended use (*i.e.*, the user television equipment devices are placed or put or used in the household) and is being used to differentiate consumer equipment (*e.g.*, set-top boxes) from large scale corporate equipment (*e.g.*, cable headends). CX-0004C (Delp WS) at Q/A 98; Delp Tr. 981, 1024-25. In other

words, the recited system is designed to provide IPGs accessible from equipment designed to be used, *i.e.*, placeable, in homes regardless of the physical location of the equipment at any given time. CX-0004C (Delp WS) at Q/A 99.

Rovi Br. at 206-08.

Comcast's entire argument follows:

Rovi's proposed construction of "located in a household," merely requires the claimed invention be "placeable in a household," as opposed to "located in" a household. This proposed construction is vague, overbroad, and completely reads the term "located in" out of the claim. In particular, Rovi's proposed construction is inconsistent with the express claim language, the patent specification, and the prosecution history because the construction attempts to read on a program guide system with functionality that is implemented and executed outside of a household, such as on remote hardware in a headend. The '871 Patent claim 12 was distinguished over the prior art by amending proposed claims 40 and 49 to include the requirement that the guides "are in the household." *See, e.g.*, JX-0011.005458 (June 23, 2009 Amendment at 12). *See also* Tr. 980:9-981:14.

In contrast, Comcast proposes that no construction is necessary, but if it is, then the construction is "kept and used

at home.” This construction is more consistent with the prosecution history and specification of the ’871 Patent. Simply put, the applicants were aware of a system that included remote hardware, for example data center headend 20 and/or network operator headend 30, but did not claim it. *See* JX-0004 (’871 Patent) at Fig. 1A.

Resps. Br. at 232-33.

Rovi replies:

Rovi’s proposed construction of the terms “located in a household” and “in a household” gives the proper weight to the applicant’s statements during prosecution of the application resulting in issuance of the ’871 Patent. Compl. Br. at 206-08. While Respondents cite to the proper part of the prosecution history (JX-0011 (’871 Patent File History) at 5466), the applicant’s statements are not applied in Respondents’ proposed construction. The relevant statements in the prosecution history have nothing to do with where the relevant equipment is “kept” or “used at.” There is also no evidence that applicant intended to differentiate between an IPG found exclusively on a local device and an IPG with distributed functionality. The applicant differentiated between the receipt of program listings and other information from equipment typically found at the headend (as was common in

prior art systems including Ellis) and a device such as a set-top box. CX-0004C (Delp WS) at Q/A 98-100; Delp Tr. 1024-25.

Rovi Reply at 78.

The administrative law judge construes “located in a household” to mean “kept and used at home.” A portion of the prosecution history that the parties cited follows:

The Examiner alleges that in Ellis the receipt of information from a television distribution facility is the same as applicants’ claimed feature of receiving program guide information from a first and second one of a plurality of interactive electronic program guides (Office Action, page 3). Applicants respectfully disagree.

Applicants’ claims 31, 40, and 49 patentably improve upon Ellis by receiving scheduled events from a first and second one of a plurality of interactive electronic program guides ***that are each in the household***. In particular, in Ellis, program listings and other information (*e.g.*, advertisements, paid programming) (*i.e.*, the alleged program information received from interactive program guides) are received from one or more distribution facilities that are outside of a household (Ellis ¶¶ 63 and 67) and ***not from first and second interactive electronic***

program guides that are in the household.

JX-0011 at 5466 (emphasis added). By distinguishing the equipment of pending claims 31, 40, and 49 from equipment that is ordinarily maintained “outside of a household”—*e.g.*, a distribution facility—the applicant characterized the claimed system such that the equipment implementing the guides, *i.e.*, set top boxes, had to be kept and used in the household.

(6) In the household

The parties do not present separate argument for the phrase “in the household.” Rather, the parties present argument for “in the household” along with the “located in a household” dispute. *See* Rovi Br., Section VII(C)(2)(e), Resps. Br., Section X(B)(2)(a). Accordingly, the administrative law judge does not construe this phrase separately.

(7) A processor configured to: receive, . . . ; receive, . . . ; and generate . . . , wherein the list of scheduled events is accessible for display from any of the first and the second interactive electronic program guides in the household;

The full text of the disputed phrase follows:

. . . the plurality of user television equipment devices comprises ***a processor configured to:***

receive, from the first interactive electronic program guide, a first event of a first type scheduled with the first interactive electronic program guide;

receive, from the second interactive electronic program guide, a second event of a second type scheduled with the second interactive electronic program guide; and

generate a list of scheduled events of the first and second types by aggregating the first and second scheduled events received from the first and second interactive electronic program guides, wherein the list of scheduled events is accessible for display from any of the first and the second interactive electronic program guides in the household; . . .

JX-0004 at 26:38-51 (indentation appears in the claim; emphasis added). The parties have proposed the following:

Rovi's Proposed Construction	Comcast's Proposed Construction
No construction is necessary. This term is not subject to § 112(6).	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 208-09; Resps. Br. at 237.

Rovi argues:

Claim 12 includes the clause a “processor configured to: receive . . .receive . . .and generate[.]” JX-0004 (’871 Patent) at col. 26, lns. 38-51. No construction of this clause is necessary. Respondents incorrectly contend the clause is a “means-plus-function” limitation. But because the claim language does not use

the term “means,” it is presumptively not a means-plus-function limitation. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). To overcome the presumption, Respondents must “demonstrate[] that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Id.* Respondents can demonstrate neither exception:

First, to a person of ordinary skill in the art, the term “processor” identifies the well-defined structure of one or more CPUs of an electronic device. CX-0004C (Delp WS) at Q/A 101; CX-1903C (Delp RWS) at Q/A 110-11; Rinard Tr. 786-89 (discussing processor limitations of Claim 12) and 849-50 (confirming the presence of processors in the accused products); JX-0004 (’871 Patent) at col. 6, lns. 58-67 (“The microprocessor 10 configures and coordinates the activities of all other components in the set-top box via two-way communication paths.”).

Second, by reciting a “processor,” the claim language does not simply recite a function without any structure for performing that function. *Id.* at col. 6, lns. 58-67, col. 7, lns. 38-45. The limitations that follow in the claim—receiving from a first IPG a first event of a first type, receiving from a second IPG a second event of a second type, and

generating a list of scheduled events wherein the list is accessible for display to the first and second IPGs—define how the processor is configured. Rinard Tr. 786-89 (discussing how the processor must be configured); CX-1903C (Delp RWS) at Q/A 111.

Rovi Br. at 208-09.

Comcast argues:

The “processor” element is a means-plus-function limitation and is discussed below in the section on invalidity. Moreover, although Rovi proposes that the term does not need to be construed, Rovi’s expert Dr. Delp appears to be uncertain of what the term means. He says it would be understood to be “one or more central processing unit(s), or CPU(s), of an electronic device,” but cites no references or authority to support his argument. CX-0004C (Delp WS) at Q/A 101. In his infringement analysis, he says “the user television equipment devices (*e.g.*, ARRIS XG1v3 and Pace XiD) comprise a processor,” and points to various schematics, but only of the XG1 and XG2 devices. CX-0004C at Q/A 189. He makes no citation to the XiD device. And he makes no analysis of the “processors” he points to; rather, he merely finds a CPU and claims that it must be the required structure that performs the specified function.

Resps. Br. at 237.

Rovi replies:

The “processor configured to . . .” claim element is not a means-plus-function clause. *See Smartflash LLC v. Apple Inc.*, 2015 U.S. Dist. LEXIS 91669 at *7-10 (E. D. Tex. 2015) (finding “processor” is not a nonce word and connotes specific structure to a person of ordinary skill in the art). Because the clause does not include the statutory “means” language, it is Respondents’ burden to prove that the clause recites function without reciting sufficient structure for performing that function., *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). Respondents’ Brief does not cite any evidence on this question. Rovi’s expert addressed the issue and found that the term “processor” as used in the claim corresponds to the well understood structure of one or more CPUs of an electronic device. CX-0004C (Delp WS) at Q/A 101; CX-1903C (Delp RWS) at Q/A 110-11; Rinard Tr. 786-89 (discussing processor limitations of claim 12) and 849-50 (confirming the presence of processors in the Accused Products); JX-0004 (’871 Patent) at col. 6, lns. 58-67.

Rovi Reply at 81. Comcast replies in its invalidity arguments. *See* Resps. Reply at 78, 93.

The administrative law judge has determined that the disputed phrase is not a means-plus-function limitation because persons of ordinary skill in the art

understood the disputed phrase as having sufficiently definite meaning for the claimed structure. The administrative law judge has also determined that no construction for this phrase is necessary because a processor was well-understood and because Comcast has not offered any alternative argument apart from its § 112 ¶6 argument.

Rovi's expert, Dr. Delp, offered the following testimony:

Q101. Let's turn to the "processor configured to" term. What would a person of ordinary skill in the art have understood "processor" to mean?

A. A person of ordinary skill in the art would have understood that the recited "processor" refers the logic circuitry that processes the various instructions that drive a computer. To a person of ordinary skill in the art, the term processor connotes the well-defined structure of one or more central processing unit(s), or CPU(s), of an electronic device.

CX-0004C (Delp WS) at Q/A 101.

Comcast does not cite the testimony of its own expert, Dr. Rinard, who offered testimony on this topic. *See* RX-0006C (Rinard WS) at Q/A 223-24. Dr. Rinard opined that the patent "does not identify a well-known structure that would have been well-understood without resort to the specification. And the specification does not provide sufficient structure." *Id.* at Q/A 224. However, Dr. Rinard also opined that:

The '871 Patent is generally directed to receiving different types of scheduled events and generating an aggregated list of those events for display. As discussed earlier, all of the technologies recited in the claims were well known conventional technologies as of July 29, 1998. Indeed, the specification of the '871 Patent acknowledges that interactive electronic program guides were well-known in the art. For example, JX-0004 ('871 Patent) at 1:29-43. ***The other physical components recited in the claims, including memory, processors, systems, and machine readable media are all generic components used in connection with such interactive electronic program guides that were well known in the industry and the specification.*** And the specification simply references conventional, well-known technologies that operate in their conventional and expected manner. For example, you can see this in the '871 Patent at 2:1-6 (VCR recorders), 3:45-47 (data centers and broadcasting equipment), 6:39-59 (set-top boxes, TV receivers, monitors, microprocessors, memory controllers and devices, tuners and decoders).

Receiving event types and storing them in a memory merely describes the generic functions of collecting data and storing it. The claims do not specify any particular type of memory, and the

specification teaches that any type of “memory controller or direct memory access (DMA) device” can be used in the claimed invention. ’871 Patent 6:46-47. Many types of memory were known in the art. Likewise, ***a shared memory that is accessible by multiple processes and/or processors was a well-known concept in the art prior to the ’871 Patent and was disclosed in textbooks such as, for example, RX-0228 (Distributed Operating Systems Concepts and Design by Pradeep K. Sinha), and RX-0229 (The Design of the Unix Operating System by Maurice J. Bach).***

Id. at Q/A 16 (emphasis added). This testimony, which Dr. Rinard supports with citations to the specification and textbooks, shows that words of the claim would have been “understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348-49 (Fed. Cir. 2015).

(8) *First and second interactive electronic program guides*

The phrase “first and second interactive electronic program guides” appears in claims 1, 10, 12, 16, 17, 21, 23, 27, 28, and 32. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
<p>No construction is necessary.</p> <p>Alternatively, a first instance and a second instance of interactive electronic program guide.</p>	<p>Comcast does not clearly present a construction in its post-hearing brief.</p>

See Rovi Br. at 209-10; Resps. Br. at 235.

Rovi argues:

. . . Respondents' proposed construction is contrary to the plain and ordinary meaning of the "first and second interactive electronic program guides" phrase because it relies on the incorrect contention that the interactive electronic program guides must be located in a "single set-top box." CX-0004C (Delp WS) at Q/A 102-03. As discussed in Section VII(C)(2)(a), *supra*, no limitation is mandated by the '871 Patent's intrinsic evidence.

Rovi Br. at 209-10 (introductory text presenting the constructions is omitted).

Comcast argues:

No construction is required for the "first and second" guides limitation. Any construction, however, should be applied consistently for purposes of both invalidity and noninfringement analysis.

Rovi's expert Dr. Delp, however, has no hesitation arguing that the Comcast products have multiple guides, even though he has not shown that Comcast has multiple "instances" (under Rovi's proposed construction) or multiple "guides with data specific to each program guide" (under Comcast's construction). In contrast, he is quick to argue that many asserted prior art references do not have multiple guides, even when they use the word "instance," such as RX-0074 (Ellis '292). Another example is Alexander, which allows for parent and child guides that Dr. Delp argues are merely "user profiles," and not multiple guides, even though the '871 Patent specifically describes an embodiment with parent and child guides. JX-0004 at 1:49-51, 1:56-57, 5:11-15, *See also* Tr. 1219:9-1220:25.

Resps. Br. at 234.

Rovi replies:

"First and second interactive electronic program guides" should be construed by the Court such that it is clear Respondents' proposed "embodied in a single set-top box" limitation is excluded. The multiple, different interactive electronic program guides need not be embodied on a single set-top box. JX-0004 ('871 Patent) at col. 3, lns. 28-33 ("IPGs may reside in multiple electronic

devices or set top boxes.”); Rinard Tr. 835.

Rovi Reply at 79.

Comcast replies:

Regarding the term “first and second interactive electronic program guides,” Rovi does not appear to take issue with the requirement, in Comcast’s proposed construction, that the guides must have different data. As shown in the analysis of the X1 system, each STB in the accused configuration displays the same guide information to each user.

Resps. Reply at 77.

The administrative law judge has determined that this phrase does not need construction. The parties have stated that it is not necessary to construe this phrase. Further, neither party affirmatively advocated for its own construction; rather, each party simply critiqued its adversary’s construction. Accordingly, the administrative law judge has not construed the phrase.

(9) The first and the second interactive electronic program guides in the household

The phrase “the first and the second interactive electronic program guides in the household” appears in claims 1 and 12.

Rovi has not presented a separate argument for this phrase. See Joint Outline at 15-16. Comcast’s entire argument for this phrase follows:

The evidence and argument presented in the previous sections on “located in a household”/ “in the household” and “first and second interactive electronic program guides” applies equally to the construction of this limitation, and supports Comcast’s construction.

Resps. Br. at 235.

The administrative law judge previously construed “located in a household” to mean “kept and used at home,” and the administrative law judge previously determined that the phrase “first and second interactive electronic program guides” does not need construction.

The administrative law judge has determined it is not necessary to construe the phrase “the first and the second interactive electronic program guides in the household” separately from its constituent parts, which have already been addressed.

(10) A list of scheduled, events of the first and second types

The phrase “a list of scheduled events of the first and second types” appears only in the claims (*i.e.*, claims 1, 12, and 23). The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
No construction is necessary. Alternatively, a list of events, including events of two different types,	Comcast does not clearly present a construction in its post-hearing brief.

scheduled to take place in the future.	
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See Rovi Br. at 210; Resps. Br. at 237-39.

Rovi argues:

. . . Respondents propose a construction of plain and ordinary meaning which is alleged to be “a list of scheduled functions including two different categories of functions.” There is no basis for equating “first and second types” with “two different *categories* of functions” as proposed by Respondents. CX-0004C (Delp WS) at Q/A 105-06.

Rovi Br. at 210 (introductory text presenting the constructions is omitted).

Comcast argues:

The '871 Patent requires generation of a list for display by aggregating events of at least two different types. Rovi and Dr. Delp contend this limitation is met if accused products display series recordings and single recordings on a list of scheduled events. According to Dr. Delp, series recordings and single recordings are different types of events.

As an initial matter, the '871 specification treats series recordings and single recordings as the same type of event. See JX-0004 at 8:4-6 (“aggregate list for all individual recordings and series recordings, future PPV purchases,

and scheduled tunes”). Moreover, Rovi and Dr. Delp are trying to read the claims of the ’871 Patent to capture subject matter that the Patent Office has repeatedly determined is unpatentable, *i.e.*, aggregating two different recording requests from two different program guides.

Dr. Delp points to claims 19 and 20 as support for Rovi’s proposed construction. Claim 20 merely makes clear that a list includes a particular kind of recording (a series recording). And claim 19 merely is making clear that the list includes recordings. There is nothing in either claim that indicates that individual and series recordings are different types of events.

Resps. Br. at 237-39 (footnote omitted).

Rovi replies:

The claim terms “a list of scheduled events of the first and second types,” “a first event of a first type,” and “a second event of second type” can be addressed together. Rovi’s position on the appropriate claim construction of these terms is set forth in the Post-Hearing Brief at 210-11 and need not be repeated here. The dispute between the parties regarding these claim terms is more about the application of the parties’ proposed constructions than the actual language of the constructions. In particular, the parties dispute whether

scheduling the recording of an individual program is an event of a different type than scheduling the recording of a series.

No intrinsic evidence supports Respondents' claim that scheduling the recording of an individual program and scheduling the recording of a series is an event of the same type. CX-0004C (Delp WS) at Q/A 108. Col. 8, lines 4-6 of the '871 Patent supports Rovi's position that individual recordings and series recordings (items included on the aggregated scheduled list) are different events of different types. Respondents purport to rely on this passage, but then ignore the specification's distinction between individual and series recordings. *Compare* JX-0004 ('871 Patent) at col., lines 4-6 (referring to "individual recordings and series recordings") *with* Respondents' proposed construction (referring only to "recordings"). And Dr. Rinard admitted at the hearing that "[a]n individual recording is one of the kinds—one of the types of recordings." Rinard Tr. 795. Respondents also argue that Rovi is attempting to recapture subject that the Patent Office has determined to be unpatentable, but Respondents' only evidence is from file histories other than the '871 Patent for claims different than those found in the '871 Patent. *See* RX-0237 ('642 Patent File History); RX-0058 (14/046,200 App. File History). There is

no authority cited for even considering such unrelated file histories.

Rovi Reply at 82-83 (footnote omitted).

The administrative law judge construes the phrase “a list of scheduled events of the first and second types” to mean “a list of events, including events of two different types, scheduled to take place in the future.” The construction provides additional context for understanding the phrase without enlarging or narrowing the claim scope. Comcast has not presented a cogent argument, with sufficient intrinsic or extrinsic support to warrant construing the phrase otherwise.

(11) A first event of a first type

The term “a first event of a first type” appears in claims 1, 12, and 23. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
No construction is necessary. Alternatively, a first event having a first functionality.	“a designation of a scheduled function of a particular category of functions, such as reminders, recordings, pay-per-view purchases, automatic tunes, or blocks”

See Rovi Br. at 211; Resps. Br. at 239.

Rovi’s entire argument for this term follows:

. . . An example of events of different types is a series recording and an episode recording. [CX-0004C (Delp WS)] at Q/A 108. Claims 19 and 20, both dependent on claim 12, support Rovi's proposed construction under the doctrine of claim differentiation. Rinard Tr. 797-98 (acknowledging references in Claims 19 and 20 to "programs scheduled to be recorded," "series recordings," "future PPV," and "auto tunes" as scheduled events). Under that doctrine, a limitation in a parent claim must be construed "at least broad enough to encompass the limitation in the dependent claim." *TecSec, Inc. v. Adobe Sys.*, No. 2015-1686, 2016 U.S. App. LEXIS 15149, *17 (Fed. Cir. Aug. 18, 2016); *Trs. of Columbia Univ, in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1370 (Fed. Cir. 2016); CX-0004C (Delp WS) at Q/A 108.

Rovi Br. at 211 (introductory text presenting the constructions is omitted).

Comcast argues:

Rovi's construction of "a first event of a first type" is overly broad and is not supported by the specification. For example, the '871 Patent lists "individual recordings and series recordings, future PPV purchases, and scheduled tunes" as examples of types of functions. JX-0004 at 8:4-6. In contrast to Rovi's overly broad proposal of "a first event having a

first functionality,” Comcast’s proposed construction, “a designation of a scheduled function of a particular category of functions, such as reminders, recordings, pay-per-view purchases, automatic tunes, or blocks.” is consistent with the specification.

Notably, during prosecution the applicants argued that the claims were patentable over Ellis because it only had one type of event. JX-0011.005808 (July 5, 2011 Amendment) (“At best, Ellis ‘292 and Ellis ‘527 disclose displaying events of one type (*e.g.*, a pay-per-view program) separately from events of another type but not aggregating the two types into a single list.”). *See also* Tr. 983:6-984:2.

Resps. Br. at 239. In reply, Comcast adds:

Regarding the terms “first event of a first type” and “second event of a second type,” Rovi incorrectly states that a series recording is a different type of event from an individual recording. Rovi’s claim differentiation argument proves too much. Rovi is correct that “a parent claim must be construed at least as broad” as the dependent claim, and that is indeed the case under Comcast’s proposed construction. Under Comcast’s construction claim 12 allows for a list that has at least two of *any* of the following categories: reminders; recordings; pay-per-view purchases; auto tunes; or blocks. Claim 19 requires that

the list *must* include recordings. And Claim 20 requires that the list *must* include recordings that are series recordings. Thus, each dependent claim is narrower than claim 12, and no different interpretation is required to achieve that result. Comcast's construction does not read into Claim 12 any limitation of the dependent claims, and so there is no claim differentiation to be made. Importantly, Rovi relies solely on its own construction of the terms "first event of a first type" and second event of a second type" (wherein individual and series recordings are different types) in its alleged infringement arguments, and a proper claim construction in which *recordings* are of one type as described in the patent is dispositive of the infringement issue in Comcast's favor.

Resps. Reply at 77-78.

The administrative law judge has determined that it is not necessary to construe this phrase. The specification uses the word "type" in a ordinary manner. *See* JX-0004 at 9:65-10:1 (describing "the type of TV" and the "user's favorite types of programs" as user-specific information); 13:33-39 (describing guide formatting depends "on the type of guide being displayed"); 16:28-33 (describing the use of "different colors for several types of programming" and providing an example that "Movies are displayed on a purple background; sports are displayed on a green background; and all other shows are displayed on a blue background."). Thus, the specification indicates

the patentee used the word “type” to denote a distinction.

(12) A second event of a second type

The term “a second event of a second type” appears in claims 1,12, and 23. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
No construction is necessary. Alternatively, a second event having a second functionality.	“a designation of a scheduled function of a particular category of functions, such as reminders, recordings, pay-per-view purchases, automatic tunes, or blocks”

See Rovi Br. at 211; Resps. Br. at 239.

Rovi’s argument for this phrase is presented with its argument for the phrase “a first event of a first type.” *See* Rovi Br. at 211.

Comcast’s argument for this phrase follows:

As discussed in the previous subsection, the event of a second type must be “a designation of a scheduled function of a particular category of functions, such as reminders, recordings, pay-per-view purchases, automatic tunes, or blocks.” As shown above in the subsection regarding the first and second types of events, the second event must be of a different type than the first event of a

first type. As explained in that subsection, two recording events are not of different types, and the evidence supports Comcast's proposed construction, not Rovi's.

Resps. Br. at 239. Comcast presents additional argument in connection with the "first event of a first type" term. *See* Resps. Reply at 77-78 (copied in the section immediately above).

The administrative law judge has determined that it is not necessary to construe this phrase. As explained in relation to the "first event of a first type" dispute, the specification uses the word "type" in a ordinary manner, to denote a distinction.¹¹⁷ The phrase "a second event of a second type" maintains this concept of denotation.

(13) A memory accessible to the first and second interactive electronic program guides

The phrase "a memory accessible to the first and second interactive electronic program guides" appears in claims 1, 12, and 23. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
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¹¹⁷ *See* JX-0004 at 9:65-10:1 (describing "the type of TV" and the "user's favorite types of programs" as user-specific information); 13:33-39 (describing guide formatting depends "on the type of guide being displayed"); 16:28-33 (describing the use of "different colors for several types of programming" and providing an example that "Movies are displayed on a purple background; sports are displayed on a green background; and all other shows are displayed on a blue background.").

<p>No construction is necessary.</p> <p>Alternatively, a memory that can be accessed by the first and second interactive electronic program guides</p>	<p>Comcast does not clearly present a construction in its post-hearing brief.</p>
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See Rovi Br. at 212; Resps. Br. at 240-41.

Rovi's entire argument follows:

. . . No intrinsic evidence requires “a memory accessible to the first and second interactive program guides” to be limited to a particular type of memory or mechanism by which the IPG accesses the memory. CX-0004C (Delp WS) at Q/A 110. Also, as noted above in Section VII(C)(2)(a), there is no requirement in Claim 12 for the two guides to be embodied in a single set-top box.

Rovi Br. at 212 (introductory text presenting the constructions is omitted).

Comcast's entire argument follows:

With regard to the term “a memory accessible to the first and second interactive electronic program guides,” Comcast's expert Dr. Rinard has opined that either construction, properly understood, is acceptable. The disagreement between Dr. Rinard's opinion and that of Rovi's expert Dr. Delp is how to properly interpret Rovi's

construction. The “memory accessible to the first and second interactive electronic program guides” was added in an amendment, in an attempt to patentably improve on Ellis ‘292. JX-0011.006686-6697 (Feb. 21, 2012 Amendment); RDX-0511. In that amendment, the applicants argued that the claim was patentable over Ellis because Ellis “is silent on where changes made on one guide and applied to another guide are stored.” JX-0011.006695. *See also* Tr. 981:24-982:25.

The difference between accessible memory and message-passing systems is important in the interpretation of these proposed constructions. As of July 29, 1998, the concept of distributed consistency had been intensively studied, and multiple methods and techniques were developed, in multiple areas of computer science such as distributed systems, parallel systems, computer architecture, and operating systems. *See* RX-0006C (Rinard WS) at Q/A 33-34. One well-known solution to this problem was to have the different guides access the same shared memory, as disclosed and discussed, for example, in prior art operating systems textbooks. *See, e.g.*, RX-0228.0135-136 (Pradeep Sinha’s Distributed Operating Systems Concepts and Design).

Regarding the shared memory approach, one known way to implement the shared

memory that the components access is to execute the guides on the same device and have the memory of that device be shared. The guides simply access the memory in the device directly. If the guides execute on different devices that do not directly share a single primary memory, it is possible to use a distributed shared memory system, which was also well-known in the art. Such a system enables guides executing on different devices to access memory on other devices using a distributed virtual shared memory system, which gives an abstraction that the different devices are sharing a single memory. *See* RX-0228.0254 (Sinha) at Fig 5.1. Under both constructions, a key aspect of a memory accessible to multiple program guides as disclosed in the '871 Patent is the use of memory addresses - a read access specifies a memory address to read, while a write access specifies a memory address to write to and the value to write into that address. *See, e.g.*, JX-0004 ('871 Pat.) at 6:64-67; *see also* RX-0204, ("Yuen") at 18:11-22 (incorporated by reference in the '871 Patent).

Under Comcast's interpretation of the claims, implementations that use some kind of message passing to obtain data would not satisfy the limitations of Claim 12 and would therefore lie outside the scope of the claims. Such implementations may or may not

literally satisfy the limitations under Rovi's proposed constructions. Under Rovi's apparent interpretation of its constructions for purposes of infringement, however, use of a message passing protocol to obtain event data from a remote server literally falls within the scope of the Asserted Claims.

Dr. Delp argues that the memory is "accessible" even if the guide cannot read and write to the memory in the manner explained above. Under Dr. Delp's constructions and interpretations, the claimed memory does not have to be accessible to the guides, as long as the guides manage to obtain the information via some mechanism (whether that mechanism involves accessible memory or not). This interpretation of the claim term directly contradicts Rovi's proposed construction of this term, which requires the memory to be accessible to the guides.

Resps. Br. at 240-41. In its reply, Comcast adds:

Regarding the term "a memory accessible to the first and second interactive program guides," Rovi's proposed construction would be acceptable, if it were properly applied. Yet Rovi applies it to systems in which no memory is accessible to either guide, as required by the '871 Patent. *See, e.g.,* JX-0004 ('871 Pat.) at 6:64-67; *see also* RX-0204, ("Yuen") at 18:11-22

(incorporated by reference in the '871 Patent). The intrinsic evidence requires that the memory, whether it is shared or not, is accessible—that is, can be read from and written to.

Resps. Reply at 78.

The administrative law judge construes “a memory accessible to the first and second interactive electronic program guides” to mean “a memory that can be accessed by the first and second interactive electronic program guides.” The construction provides additional context for understanding the phrase without enlarging or narrowing the claim scope. Comcast has not presented a cogent argument, with sufficient intrinsic or extrinsic support, to warrant construing the phrase otherwise.

(14) Generate a list of scheduled, events of the first and second types by aggregating the first and second scheduled events received from the first and second interactive electronic program guides

The phrase “generate a list of scheduled events of the first and second types by aggregating the first and second scheduled events received from the first and second interactive electronic program guides” only appears in claim 12. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
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<p>No construction is necessary.</p> <p>Alternatively, generate a list of scheduled events of the first and second types by combining the first and second scheduled events received from the first and second interactive electronic program guides.</p>	<p>Comcast does not clearly present a construction in its post-hearing brief.</p>
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See Rovi Br. at 212-13.; Resps. Br. at 241-42.

Rovi's entire argument for this term follows:

. . . There is no need to construe this term, but Respondents' proposed alternative construction goes far beyond the plain and ordinary meaning of "generate." CX-0004C (Delp WS) at Q/A 114. As discussed, *supra* Sections VIII(C)(2)(e), (h), the "first and second electronic program guides" need not be "kept and used in the same home," and there is no intrinsic support for "a single combined list" that includes "different categories of requests."

Rovi Br. at 213 (introductory text presenting the constructions is omitted).

Comcast argues:

With regard to the term "generating a list of scheduled events of the first and

second types by aggregating the first and second schedule events received from the first and second interactive electronic program guides,” the guides must be located “in the household” (and not on a server), and the first and second events must be different types (instead of recordings of two programs as part of a series or as an individual episode). These are the main points of contention between the parties with respect to the claim construction of this term. As described above in the subsections on first and second program guides and “in the household,” the evidence supports Comcast’s construction: “combining separate scheduled events provided by two different program guides (that are kept and used in the same home) into a single combined list that includes two different categories of requests.”

Resps. Br. at 241-42. In reply, Comcast adds:

Regarding the term “generate a list of scheduled events of the first and second types by aggregating the first and second scheduled events received from the first and second interactive electronic, program guides,” Rovi argues that there is “no intrinsic support for ‘a single combined list’ that includes ‘different categories of requests.’” Compl. PoHB at 213. Respondents respectfully point to the very intrinsic claim language itself, which claims “*a list of scheduled events of*

*the first and second types by aggregating
the first and second schedule events”*

Resps. Reply at 78 (emphasis in original).

The administrative law judge has determined it is not necessary to construe this phrase separately from its constituent parts, which have already been construed. Indeed, the parties indicate that the dispute over this phrase is an extension of the disputes pertaining to the phrase’s constituent parts. Further, the only new words in this phrase are “generate” and “aggregating,” and the parties’ proposed constructions with regard to these words are not debated in the briefs. Thus, this phrase does not need to be construed.

3. Representative Products

Rovi’s entire argument is:

Accused X1 Guide Products for the ’871 Patent are models of set-top boxes capable of running the X1 Guide that meet the legal requirements of importation, sale, or lease to Comcast or Comcast’s customers in the United States on or after April 1, 2016: Pace/ARRIS XG1 v3 (X1) PX013ANM, ARRIS XG1 v3 (X1) AX013ANM, Pace/ARRIS XG1 v3 (X1) PX013ANC, ARRIS XG1 v3 (X1) AX013ANC, Pace/ARRIS XG2 v2 (X1) PX022ANM, Pace/ARRIS XG2 v2 (X1) PX022ANC, Pace/ARRIS XiD (X1) PXD01ANI-X1, and Technicolor/Cisco XiD (X1) CXD01ANI (together, ’871 Patent Accused Products). CX-0004C (Delp WS) at Q/A 5, 117; Joint Outline at Table 1.

Each set-top box running the X1 Guide works in materially the same way for purposes of infringement. CX-0004C (Delp WS) at Q/A 118; *see also* CX-1885 (Xfinity on X1 Platform) (including same set of instructions for the X1 Guide without regard to the particular model of set-top box). [] *Id.*; JX-0081C (Comcast/ARRIS Master Supply Agreement) at 33; JX-0096C (Folk Dep. Tr.) 95-98; JX-0105C (McCann Dep. Tr.) 84-85. There are no differences between the X1 set-top boxes or X1 Guides running on X1 set-top boxes relevant to infringement of the '871 Patent. CX-0004C (Delp WS) at Q/A 118-20; JX-0105C (McCann Dep. Tr.) 87-88. For example, no difference between set-top boxes related to the [] or model affects the '871 infringement analysis. CX-0004C (Delp WS) at Q/A 120. Throughout his testimony at the hearing, Dr. Rinard made no distinction between any models of, set-top box and agreed that for the purposes of infringement, the relevant devices operated in the same manner. Rinard Tr. 801-03. Because there are no material differences between the different X1 set-top boxes, the ARRIS XG1 v3 (X1) AXo013ANC is representative of the operation of all such products. CX-0004C (Delp WS) at Q/A 120. The Technicolor/Cisco XiD (X1) CXD01ANI is

representative of the non-DVR X1 set-top boxes. *Id.* at Q/A 186.

Rovi Br. at 213-14.

Comcast argues:

The STBs that Rovi accuses of infringement of claims 12, 17, and 18 of the '871 Patent are listed in JX-0084C.000035-37. The Accused X1 STBs use the following processors: [] Dividing the products up into representative categories by the model of processor used is necessary because the “processor” element of the asserted claims is a means-plus-function limitation. Rovi has not shown that these various processors are representative of each other.

Additionally, DVR functionality is a fundamental element of the asserted claims and Rovi has used examples of DVR recordings extensively in its infringement allegations. Rovi has not made any showing that the combination of the particular DVR and non-DVR STBs analyzed in its infringement analysis is representative of other combinations. Specifically, the accused products vary by DVR capabilities, as follows: []

Rovi has not shown that the combination it has analyzed is representative of any other combinations. . . .

Resps. Br. at 230-31 (reproduction of RX-0870C.0006 omitted; emphasis in original). The two exhibits Comcast cites to support its argument, JX-0084C and RX-0870, were created by the parties' counsel and do not contain evidentiary support. Further, Comcast has not pointed to any testimony to contest that the products Rovi identified are representative.

Accordingly, the administrative law judge has determined that Rovi has presented sufficient evidence, and that Comcast has not rebutted this evidence. *See Sponsion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1351-52 (Fed. Cir. 2010) ("Appellants contend that the ALJ improperly shifted the burden to Appellants to establish that the non-modeled accused packages would behave differently than those that were modeled. Rather than improper burden shifting, the ALJ properly found that Appellants simply failed to rebut the substantial evidence set forth by Tessera."); *see also TiVo, Inc. v. EchoStar Commc'ns Corp.*, 516 F.3d 1290, 1308 (Fed. Cir. 2008). Thus, the administrative law judge finds that the ARRIS XG1v3 AX013ANC is representative of DVR-enabled set-top boxes and that the Pace XiD (PXD01ANI) is representative of the non-DVR X1 set-top boxes.¹¹⁸ *See* CX-0004C (Delp WS) at Q/A 117, 120, 186.

4. Literal Infringement

Rovi asserts Claims 12, 17, and 18 of the '871 Patent in this Investigation. Rovi Br. at 214; CX-0004C (Delp WS) at Q/A 6. Claim 12 is an independent claim, claim

¹¹⁸ Rovi's brief references the Technicolor/Cisco XiD (X1) CXD01ANI, while Dr. Delp's witness statement discusses the Pace XiD (PXD01ANI). *Compare* Rovi Br. at 214 *with* CX-0004C (Delp WS) at Q/A 186.

17 is dependent on claim 13, which depends on claim 12. Claim 18 is dependent on claim 12.

a) Claim 12

Claim 12, with bracketed, alphanumeric claim limitations provided by Rovi, follows:

[12pre] 12. A system for displaying interactive electronic program guides, the system comprising:

[12a] a plurality of user television equipment devices that are located in a household and from which first and second interactive electronic program guides are accessible, wherein the plurality of user television equipment devices comprises a processor configured to:

[12b] receive, from the first interactive electronic program guide, a first event of a first type scheduled with the first interactive electronic program guide;

[12c] receive, from the second interactive electronic program guide, a second event of a second type scheduled with the second interactive electronic program guide; and

[12d] generate a list of scheduled events of the first and second types by aggregating the first and second scheduled events received from the first and second interactive electronic program guides, wherein the list of scheduled events is accessible for display

from any of the first and the second interactive electronic program guides in the household; and

[12e] a memory accessible to the first and second interactive electronic program guides for storing the received first and second events.

JX-0004 at 26:32-54.

(1) Limitation 12pre

The text for this limitation is “12. A system for displaying interactive electronic program guides, the system comprising[.]” *See* Rovi Br. at 215.

Rovi argues:

To the extent the preamble is a limitation, the '871 Patent Accused Products are systems for displaying interactive electronic program guides. CX-0004C (Delp WS) at Q/A 186. The relevant system is Comcast's AnyRoom DVR system which includes a DVR enabled set-top box (such as the ARRIS XG1v3 (AX013ANC)) capable of running an instance of the X1 Guide and a non-DVR set-top box (such as the Pace XiD (PXD01ANI)) capable of running another instance of the X1 Guide. *Id.* at Q/A 186-87; Rinard Tr. 792; CX-1776C (described by Dr. Rinard at Rinard Tr. 800 as a representation of the X1 system); *see also* CX-1296C (Xfinity X1 AnyRoom DVR Overview); CX-1253C (X1 AnyRoom DVR). An IPG instance on a DVR enabled set-top box (*e.g.*, the XG1) is

shown at CX-1632 (X1 Screenshots for the '871 Patent) at 3, and an IPG instance on a non-DVR enabled set-top box (*e.g.*, the XiD) is shown at CX-1632 (X1 Screenshots for the '871 Patent) at 2.

Rovi Br. at 215 (footnote omitted).

Comcast argues that the “accused products do not include the ‘first and second interactive electronic program guides’ that are in every element of claim 12 (12pre-12e).” Resps. Br. at 245.

The administrative law judge previously determined that the preamble is not limiting and that no construction is necessary. *See* Section IV(D)(2)(b)(1).

However, if the preamble is found to be a limitation, then the limitation is met because the accused products constitute a system that displays multiple electronic program guides, as discussed in relation to limitation 12a.

(2) Limitation 12a

The text for this limitation is “a plurality of user television equipment devices that are located in a household and from which first and second interactive electronic program guides are accessible, wherein the plurality of user television equipment devices comprises a processor configured to[.]” *See* Rovi Br. at 216.

Rovi argues:

... Comcast’s AnyRoom DVR system and the '871 Patent Accused Products include at least two television equipment devices (*e.g.*, the ARRIS XG1v3 and Pace XiD)

located and/or placeable in a household and from which first and second X1 IPGs are accessible. CX-0004C (Delp WS) at Q/A 189. There is no dispute that the '871 Patent Accused Products are placeable in a household following importation. Rinard Tr. 791-792 (testifying about the intended use of the AnyRoom DVR system), 800 (discussing CX-1776C as a representation of the accused X1 system); CX-1776C (depicting the presence of the '871 Patent Accused Products in a household).

Rovi Br. at 216.

Comcast argues that the accused products do not contain even one interactive program guide, because the program guides are [] See Resps. Br. at 245-47.

The administrative law judge has determined that Rovi has shown that the accused products meet this limitation, which requires that the system include (a) user television equipment devices, (b) that are located in a household, (c) which allow access to first and second guides, and (d) a processor. Each sub-limitation is discussed below.

(a) User television equipment devices

There is no substantive dispute that the XG1 and XiD set-top boxes are the user television equipment devices. See CX-0004C (Delp WS) at Q/A 186, 189 (identifying the AX013ANC and PXD01ANI boxes); RX-0849C (Rinard RWS) at Q/A 88 (discussing the XG1 and XiD, without contesting the “user television equipment devices” requirement).

The administrative law judge has determined that the accused products meet this sub-limitation.

(b) Located in a household

There is no substantive dispute that the set-top boxes themselves are located (kept and used) in a household. *See* CX-0004C (Delp WS) at Q/A 189; Tr. 792 (Dr. Rinard testifies that a standard X1 system includes multiple boxes in the home); *See generally* Resps. Br., Section X(C)(2(b)(ii) (this section argues that the processor is not “in the household;” the set-top boxes are not addressed). Accordingly, the administrative law judge has determined that the accused products meet this sub-limitation.

(c) First and second guides

The parties disagree whether the accused products include first and second guides.

The '871 Patent explains that “a major advantage of the IPG in the multi-source architecture” is “allowing users to use multiple (three as an example) instances of the IPG simultaneously.” JX-0004 at 8:49-52. The patent also discloses “independent instances” of an IPG and “interdependent IPGs.” *Id.* at 5:42-45. The patent further explains that one advantage of deploying three IPGs is that “users can view three different channels simultaneously.” *Id.* at 8:53.

Dr. Delp opined that a user can access one guide with the XG1 (DVR) set-top box and another instance of the guide with a non-DVR set-top box. *See* CX-0004C (Delp WS) at Q/A 189-90 (discussing CX-1632); CX-0005C (J. Williams WS) at Q/A 114 (“CX-1632.000002 [is] a picture of the guide on the non-DVR STB; CX-1632.000003 [is] a picture of the guide on the DVR STB”); CX-1632 at 2-3; *see also* Tr. 853-54 (Dr. Rinard

testified that users can schedule recordings from different rooms in a household).

Accordingly, the evidence shows that first and second guides are accessible from the set-top boxes, which is all this sub-limitation requires. Thus, the administrative law judge has determined that the accused products meet this sub-limitation.

(d) A processor

There is no disagreement that a physical processor is located in the XG1 set-top box, which is kept and used in the household. Dr. Delp explained that the accused products have a processor:

. . . Furthermore, the user television equipment devices (*e.g.*, ARRIS XG1v3 and Pace XiD) comprise a processor. This is shown in CX-1305C (Pace-XG1v3 Multi-Tuner Video Gateway) at p. 2, CX-1353C (XG1v3 Main Board Schematic) at p. 2; CX-1317C (Comcast-HW Specification for XG 1 and XG2 STB Products) at p. 36.

CX-0930C provides detailed claim charts with specific infringement evidence for this limitation.

CX-0004C (Delp WS) at Q/A 189. Dr. Rinard testified that Dr. Delp identified a processor in the XG1 set-top boxes. RX-0849C (Rinard RWS) at Q/A 88 (“. . . The processor in the XG1, which is the only processor Dr. Delp appears to be pointing to, [] as I have testified earlier.”). Dr. Rinard’s comments about [] pertain to the “configured to” language and are addressed in limitation 12d below. Accordingly, the administrative

law judge has determined that the accused products meet this sub-limitation.

In sum, the administrative law judge has determined that the, accused products meet limitation 12a.

(3) Limitations 12b and 12c

The text for limitation 12b is “receive, from the first interactive electronic program guide, a first event of a first type scheduled with the first interactive electronic program guide[.]” *See* Rovi Br. at 217. The text for limitation 12c is “receive, from the second interactive electronic program guide, a second event of a second type scheduled with the second interactive electronic program guide[.]” *Id.*

Rovi presents a joint argument for limitations 12b and 12c. *See* Rovi Br. at 217-19.

Comcast also present a joint argument that contends the accused products do not contain first and second guides and that the processor in the set-top boxes does not [] *See* Resps. Br. at 248. Comcast contends a “key press” from a remote control, a recording command from the [] and a graphics command to display a recording screen are not “events.” *Id.* at 248-51.

The language of limitations 12b and 12c is not complex or detailed. *See* Resps. Br. at 262 (Comcast argued that “Claim 12 of the ’871 Patent is representative . . . and requires taking data from two sources (a first and second interactive electronic program guide) and combining them together to “generate a [single] list of scheduled events.”). The processor must receive events (*e.g.*, recordings) from first and second guides. Limitations 12b and 12c (and

the '871 Patent) involve generic, functional outcomes, not particularized schemes used to achieve those outcomes. The evidence shows that the processor receives input associated with a recording. For limitation 12b, Dr. Delp opined that:

The ARRIS XG1v3 contains a processor that is [] as shown, for example, by CX-1410C (XCAL DVR Messaging Functional Specification) at p. 13.

. . .

The recording command is []
Accordingly, the AnyRoom DVR system meets this claim limitation.

CX-0004C (Delp WS) at Q/A 192. For limitation 12c, Dr. Delp opined that:

The second X1 IPG is configured to []
as discussed in 12b above.

Id. at Q/A 196.

The administrative law judge has determined that the accused products meet limitations 12b and 12c.

(4) Limitation 12d

The text for this limitation is “generate a list of scheduled events of the first and second types by aggregating the first and second scheduled events received from the first and second interactive electronic program guides, wherein the list of scheduled events is accessible for display from any of the first and the second interactive electronic program guides in the household[.]” *See* Rovi Br. at 219.

Rovi argues that there is no dispute that the AnyRoom DVR system generates and displays a single

list or recordings and that the list can be seen from “any of the subscriber’s devices.” Rovi Br. at 220.

Comcast argues, *inter alia*, that “the XG1 processor [] Executing graphics commands to create an image does not combine [*i.e.*, generate by aggregating] received events as Claim element 12d requires.” Resps. Br. at 252.

The administrative law judge has determined that Rovi has not shown that the accused products meet this limitation, which requires (a) that the processor generate a list of scheduled events by aggregating events from the first and second guides, (b) that the aggregated list is available for display by the first and second guides, and (c) that the first and second guides are in the household. Each sub-limitation is discussed below.

*(a) Generate a list of scheduled events
by aggregating events from the first
and second guides*

Limitation 12d requires the processor to generate a list of scheduled events. Dr. Delp opined that:

. . . scheduled recordings of single episodes (purple) and series (red) start at the STB, are relayed through Comcast’s servers, and are ultimately sent back to the STB, forming an aggregate list of scheduled series and episode recordings. The round-trip transmission of series and episode recordings is the same, regardless of whether the set-top that instigates the scheduled recording is a DVR or non-DVR set-top.

CX-0004C (Delp WS) at Q/A 201. In Q/A 202, Dr. Delp opined that “code flow for combining series and episode recordings into one aggregate list in the Scheduler is depicted in CDX-6063[.]” At the hearing, however, Dr. Delp testified that this code [

Q.

A.

Q.

A.

Q.

A.]

Tr. 989.

Further, the “screen shots” that Dr. Delp relies upon, CX-004C at Q/A 203, simply shows that the X1 system [] not generating an aggregated list.

The administrative law judge has determined that Rovi has not shown that the accused products meet this sub-limitation.

(b) The aggregated list is available for display from the first and second guides

The claim language is not complex or detailed, nor is it limited to a particularized scheme involving recording commands, source code, and software execution, as Comcast argues.

The evidence shows that the aggregated list is available for display on both guides. *See* CX-0004C (Delp WS) at Q/A 203; CX-0005C at Q/A 114-15; CX-1632 at 12, 37.

The administrative law judge has determined that the accused products meet this sub-limitation.

(c) First and second guides are in the household

Rovi argues that the first and second guides satisfy this sub-limitation because “the list of scheduled events is accessible for display in the household from any of the first X1 IPG. (implemented on the ARRIS XG1v3 set-top) and the second X1 IPG (implemented on the Pace XiD set-top).” See CX-0004C (Delp WS) at Q/A 201. This argument materially rearranges the order of the claim language such that the first and second guides would not be required to be “in the household.” As explained above, during prosecution, the applicant argued that:

Applicants’ claims 31, 40, and 49 patentably improve upon Ellis by receiving scheduled events from a first and second one of a plurality of interactive electronic program guides ***that are each in the household.*** In particular, in Ellis, program listings and other information (e.g., advertisements, paid programming) (i.e., the alleged program information received from interactive program guides) are received from one or more distribution facilities that are outside of a household (Ellis ¶¶ 63 and 67) and ***not from first and second interactive electronic program guides that are in the household.***

JX-0011 at 5466 (emphasis added). Rovi's argument conflicts with arguments made to obtain the '871 Patent.

As Comcast repeatedly argued, and as the evidence shows, the first and second program guides do not reside and execute (*e.g.*, are kept and used at home) [] *See* RX-0849C (Rinard RWS) at Q/A 78, 80, 83, 88, 111; Tr. 838-839.

The administrative law judge has determined that Rovi has not shown that the accused products meet this sub-limitation.

(5) Limitation 12e

The text for this limitation is "a memory accessible to the first and second interactive electronic program guides for storing the received first and second events." *See* Rovi Br. at 221.

Rovi argues that the "ARRIS XG1v3 set-top box includes [] Rovi Br. at 221 (citing CX-0004C (Delp WS) at Q/A 206-07; CX-1632 (X1 Screenshots for the '871 Patent) at 18, 21-22).

Comcast argues that [] *See* Resps. Br. at 254.

The administrative law judge construed "a memory accessible to the first and second interactive electronic program guides" to mean "a memory that can be accessed by the first and second interactive electronic program guides."

A "Product Overview" of Comcast's AnyRoom DVR explains that:

With AnyRoom DVR, all of the DVR features become available on all of the X1 Platform devices in your home, even if they aren't all DVR devices. Both the

primary DVR and companion boxes have the ability to playback recordings simultaneously, whether it is the same program or up to 4 different programs. Users can also actively manage the settings of completed recordings as well as delete them from any companion box or the primary DVR.

CX-1253C at 1-2; *see also* CX-0004C (Delp WS) at Q/A 206. Thus, evidence shows that the accused products have a memory that is accessible to more than one guide.

The administrative law judge has determined that the accused products meet this limitation.

b) Claims 13 and 17

Dependent claims 13 and 17 follow:

- 13. The system defined in claim 12, wherein a given interactive electronic program guide in the household is configured to allow a user to select a program for recording.
- 17. The system defined in claim 13, wherein the first and second interactive electronic program guides that are in the household are configured to allow the user to cancel the recording of the selected program.

JX-0004 at 26:55-57, 27:7-10.

Rovi argues that the accused products allow the user to select and cancel a recording from the first and second guides. *See* Rovi Br. at 222.

Comcast relies on its arguments about claim 12 to argue that claims 17 and 18 are not infringed. *See*

Resps. Br. at 155 (“As discussed above with regard to Claim 12, because the XG1 and XiD STBs []

The evidence shows that if claim 12 is infringed, then claim 17 is also infringed. *See Ferring*, 764 F.3d at 1411.¹¹⁹ Comcast product literature explains that in “AnyRoom DVR, you can use your RNG-150(s) [the companion box] as a Digital Video Recorder (DVR). Recording, deleting and playing back recorded programs is as simple using your on-screen guide, just like the XG1.” CX-1253C at 1; *see also* CX-0004C (Delp WS) at Q/A 211.

c) Claim 18

Claim 18 recites “18. The system defined in claim 12, wherein the processor is configured to allow the user to obtain additional information for any item on the list of scheduled events.” JX-0004 at 27:11-13.

Rovi cites to CX-1632 at 28 as an example of a guide showing “additional information.” The ’871 Patent identifies “plot” as an example of additional information. JX-0004 at 4:30-32 (“Each IPG can be configured so that users can see additional information, such as plot, actors, and rating for a program by pressing the INFO or SELECT keys while viewing a guide.”). CX-1632 at 28 shows a plot summary of the “Swuit” episode of *New Girl*. Accordingly, the evidence shows that if claim 12 is

¹¹⁹ In *Ferring*, the Federal Circuit found a dependent claim not infringed because its corresponding independent claim was not infringed. *Ferring B.V. v. Watson Labs., Inc.-Florida*, 764 F.3d 1401, 1411 (Fed. Cir. 2014) (“Because we hold that the asserted independent claims of Ferring’s patents are not infringed, the asserted dependent claims are likewise not infringed.”)).

infringed, then claim 18 is also infringed. *See Ferring*, 764 F.3d at 1411.

d) Alternative Design

Comcast's entire argument is:

Moreover, Comcast has already formulated an alternative software design that cannot infringe the '871 Patent even using Dr. Delp's constructions and interpretations. []

RX-0849C (Rinard RWS) at Q/A 152.

Resps. Br. at 256.

The administrative law judge has determined that the alternative design Comcast has identified is too hypothetical to adjudicate. No testimony indicates that the alternative design is a finalized product or sufficiently described for consideration by the Commission. *See* RX-0849C (Rinard RWS) at Q/A 152; CX-0004C (Delp WS) at Q/A 244-49.

5. Indirect Infringement

In the event that the accused products are found to infringe the '871 Patent, the administrative law judge has analyzed Rovi's inducement and contributory infringement arguments.

a) Knowledge of the '871 Patent and Specific Intent to Infringe

The administrative law judge finds that Comcast had the requisite intent and knowledge of the '871 Patent for the same reasons provided in the discussion of the '556 Patent above. *See* Section IV(A)(5)(a).

b) Induced Infringement of the '871 Patent

(1) Comcast's Customers

Rovi has not sufficiently shown that customers actually utilize the accused products—the XG1 and XiD boxes—in an infringing manner. *See* Rovi Br. at 224 (citing CX-0004C (Delp WS) at Q/A 128-31 (Dr. Delp's testimony pertains to two patents and does not specify what accused products he is addressing)); *Epcon Gas Sys., Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1033-34 (Fed. Cir. 2002) (explaining the rule that “[u]pon a failure of proof of direct infringement, any claim of inducement of infringement also fails” and then reversing summary judgment of no infringement based upon evidence that the defendant demonstrated the product to prospective buyers).

(2) Comcast's Suppliers

Rovi argues that Comcast induces ARRIS and Technicolor to infringe the asserted claims by purchasing the boxes made by ARRIS and Technicolor and by causing ARRIS and Technicolor to import the accused boxes. *See* Rovi Br. at 223-24.

Comcast argues:

. . . the ARRIS and Technicolor respondents cannot directly infringe the asserted claims of the '871 Patent, for all of the reasons discuss above in the analysis regarding direct infringement. Moreover, Rovi has accused one Technicolor product of infringement in this matter, the Technicolor/Cisco XiD (a/k/a XiD-Z/X1 or CXD01ANI, with Product Identification ITQ8122P-XIDKIT-K9) (the “XiD”). Rovi's

infringement reads require more than one product. Neither ARRIS nor Technicolor import, or sell after importation, the electronic program guide for the X1 platform. The X1 STBs provided by ARRIS and Technicolor only [] which are not an electronic program guide, because it does not contain the intelligence for providing program listings, or allowing users to select programs for viewing or recording. As described repeatedly, the X1 platform is [] Claim 12 recites a processor as part of the claimed system. Rovi and Dr. Delp have not demonstrated that the “processor” is imported, or sold after importation by ARRIS or Technicolor. As discussed above in the section on direct infringement, the relevant functionality is found on remote hardware, not on any ARRIS or Technicolor STB.

Resps. Br. at 256.

The administrative law judge has determined that ARRIS and Technicolor do not directly infringe the asserted claims for the same reasons that Comcast does not directly infringe the asserted claims.

c) Contributory Infringement of the '871 Patent

To prevail on a contributory infringement claim, a complainant must show that, *inter alia*, the accused product is “not a staple article or commodity of commerce suitable for substantial noninfringing use[.]” *See* 35 U.S.C. § 271(c); *Fujitsu*, 620 F.3d at 1326 (“To establish contributory infringement, the patent

owner must show the following elements relevant to this appeal: 1) that there is direct infringement, 2) that the accused infringer had knowledge of the patent, 3) that the component has no substantial noninfringing uses, and 4) that the component is a material part of the invention.”).¹²⁰

The administrative law judge has determined that Rovi has fallen short of meeting its burden of showing that the accused products have no substantial non-infringing uses; rather, the evidence shows that the accused X1 products have many substantial non-infringing uses, such as watching television programs. See RX-0848C (Grimes RWS) at Q/A 152 (the last paragraph of Dr. Rinard’s testimony about an alternative design is afforded no weight).

Further, Rovi’s expert testified that having a single, primary box alone would not support an infringement claim:

Q. Isn’t it true that a Comcast subscriber who has a DVR box alone can’t infringe the ’871 Patent?

A. Well, the analysis I provided required two boxes.

Q. So if a Comcast subscriber is in home with only a DVR box, they don’t infringe?

A. I believe that’s correct.

¹²⁰ See also Section III(C)(2)(b) (general principles of law) and Section IV(A)(5)(b) (citing *In re Bill of Lading Transmission*, 681 F.3d at 1338; *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d at 1327; *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d at 851), *supra*.

Q. And if a subscriber in his house has a non-DVR box alone, they don't infringe?

A. I believe that's correct. Although the boxes are capable of infringing, sure.

Tr. 988. Thus, the sale of a primary set-top box alone would not constitute contributory infringement.

6. Domestic Industry – Technical Prong

Rovi identifies the following DI products:

- 1) Rovi i-Guide combined with Rovi TotalGuide xD system,
- 2) Rovi Passport system (including Rovi Passport combined with Rovi TotalGuide xD system), and
- 3) Verizon FiOS system.

Rovi Br. at 230 (citing CX-0004C (Delp WS) at Q/A 330). The systems are addressed below in relation to the “generate a list by aggregation” and “in the household” limitations of claim 12.¹²¹

a) Claim 12

(1) Limitation 12d – “generate a list . . . by aggregating . . . events”

(a) Rovi i-Guide

Rovi has not shown that the Rovi i-Guide set-top boxes include a processor that is configured to

¹²¹ With regard to the X1 system, the administrative law judge determined that Rovi had not shown that the X1 products infringed claim 12 because it had not shown the X1 products had a processor configured to “generate a list of scheduled events by aggregating events from the first and second guides” or that the first and second guides were in the household.

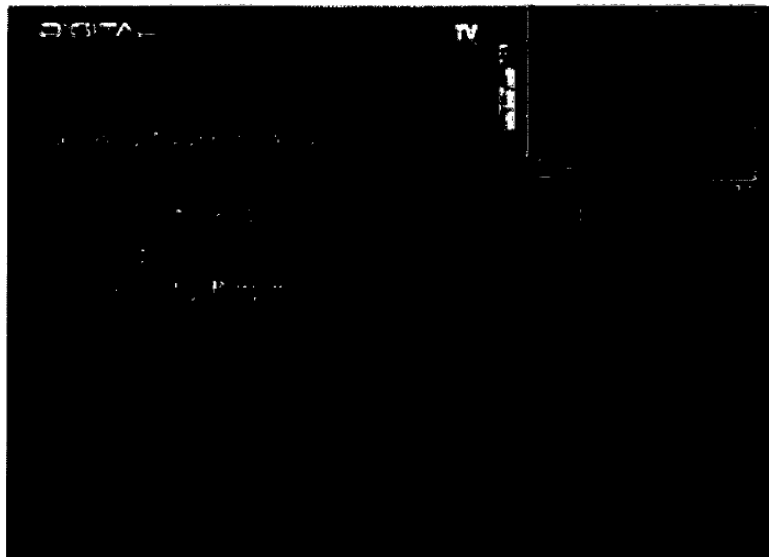
“generate a list of scheduled events . . . by aggregating the first and second scheduled events[.]”

Rovi’s brief cites to CX-0004C (Delp WS) at Q/A 360, which follows:

Q360. How is this element met by an i-Guide and TotalGuide xD system?

A. [] The aggregate list is accessible for display from the i-Guide IPG and TotalGuide xD IPG.

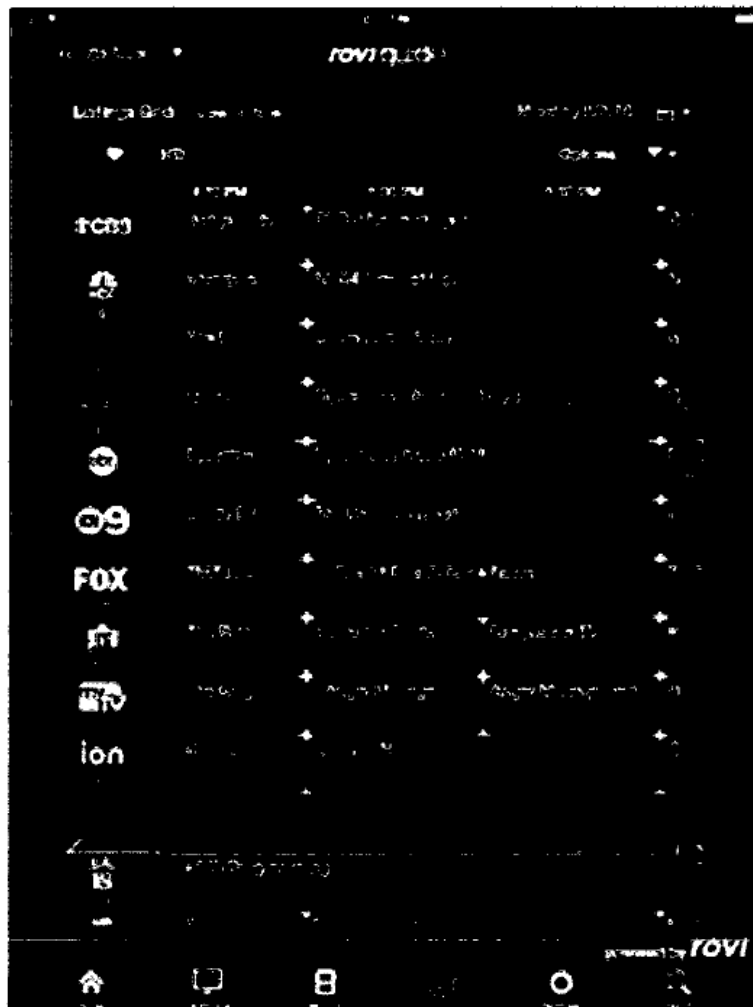
For example, the aggregate list is displayed on an i-Guide IPG, as shown in CDX-0680.11, below.



The TotalGuide xD also displays the aggregate events, as shown in CDX-0680.12, below. In the below example, the series recording is identified by three

578a

overlapping red dots, while the episode recording is identified by a single red dot.



This is further shown in CX-1596. Additionally, CX-1768C and CDX-0680C provide detailed claim charts with

additionally specific domestic industry evidence for this limitation.

The cited testimony does not explain how the processor in the set-top boxes generates a list by aggregating events from two guides. Indeed, Rovi's argument equates displaying an aggregated list, which is a separate requirement of limitation 12d, with generating the list. *See* RX-0849C (Rinard RWS) at Q/A 160-61 ("Claim element 12d requires the processor to be configured to generate a list by aggregating the received events. . . . Dr. Delp provides no evidence that any lists are aggregated from the received events[.]" Thus, Rovi has not shown that the processor generates the list by aggregating event selections from the first and second guides.

(b) Rovi Passport

Rovi cites CX-0004C (Delp WS) at Q/A 361-62 in support of its contention that the Passport system (with and without TotalGuide xD) satisfies this limitation. Q/A 361-62 essentially replicate the testimony given for the i-Guide, albeit with a different product name and pictures.

The administrative law judge has determined that Rovi has not shown that the Passport products have a processor that is configured to "generate a list . . . by aggregating" event selections from the first and second guides. The Passport products (with and without Total Guide) do not satisfy this limitation for the same reasons that the i-Guide products do not satisfy this limitation.

(c) Verizon FiOS

Rovi cites CX-0004C (Delp WS) at Q/A 365 in support of its contention that the FiOS products practice claim 12, limitation 12d. Q/A 365 follows:

Q365. How is this element met by a Verizon FiOS system?

A. []

CX-1773C and CDX-0685C provide detailed claim charts with specific domestic industry evidence for this limitation. Furthermore, CX-1626 provides screenshots of the list being accessible for display from a FiOS IPG.

The cited testimony does not explain how the processor in the set-top boxes generates a list by aggregating events from two guides. Indeed, Rovi's argument equates displaying an aggregated list, which is a separate requirement of limitation 12d, with generating the list. *See* RX-0849C (Rinard RWS) at Q/A 160-61 ("Claim element 12d requires the processor to be configured to generate a list by aggregating the received events. . . . Dr. Delp provides no evidence that any lists are aggregated from the received events[.]" Thus, Rovi has not shown that the processor generates the list by aggregating event selections from the first and second guides.

Thus, Rovi has not shown that the Verizon products satisfy this limitation.

(2) Limitation 12d—"in the household"

(a) Rovi i-Guide

Rovi's brief argues that the primary and companion set-top boxes meet the "in a household / in the household" requirements.

As with the X1 products accused of infringement, Rovi has not shown that the first and second program guides reside and execute (*e.g.*, are kept and used at home) on the identified set-top boxes/iPads. *Compare* RX-0849C (Rinard RWS) at Q/A 160-61 (“Because the asserted claims involve aspects of the X1 system or media that are not apparent in the user interface alone, an analysis of the user interface, without an analysis of the internal structure and behavior of the system, is not sufficient to show that a system practices the asserted claims.”) *with* RX-0849C (Rinard RWS) at Q/A 78, 80, 83, 88, 111; Tr. 838-839 (Dr. Rinard’s non-infringement analysis for the X1 products, which analyzed the products beyond the user interface).

(b) Rovi Passport

The administrative law judge has determined that Rovi has not shown that the Passport products have first and second guides that reside and execute (*e.g.*, are kept and used at home) on the identified set-top boxes/iPads. The Passport products (with and without Total Guide) do not satisfy this limitation for the same reasons that the i-Guide products do not satisfy this limitation.

(c) Verizon FiOS

The administrative law judge has determined that Rovi has not shown that the Verizon products have first and second guides that reside and execute (*e.g.*, are kept and used at home) on the identified set-top boxes. The Verizon products do not satisfy this limitation for the same reasons that the i-Guide and Passport products do not satisfy this limitation.

b) Claims 13, 17, and 18

Comcast has not challenged Rovi's assertion that the domestic industry products practice claims 13, 17, and 18. *See generally* Resps. Br., Section X(D).

The evidence shows that if the domestic industry products practice claim 12, then they also practice claims 13, 17, and 18. *See* CX-0004C (Delp WS) at Q/A 374-76, 379, 381-83, 386, 388-90, 393; *Cf Ferring*, 764 F.3d at 1411.

7. Patent Eligibility

Under step one of the *Alice* framework, Comcast argues:

The claims of the '871 Patent are directed to the abstract idea of receiving different types of scheduled events and then generating an aggregated list of those events for display. RX-0006C (Rinard WS) Q/A 16. Claim 12 of the '871 Patent is representative of the asserted claims and requires taking data from two sources (a first and second interactive electronic program guide) and combining them together to "generate a [single] list of scheduled events."

The concept of receiving data and organizing it is plainly directed to an abstract idea. . . .

. . .

The '871 Patent does not claim to have invented a system for displaying interactive electronic program guides, but rather the claims are directed to an idea for how to use such a system with

generic computer technology. See *Certain Activity Tracking Devices*, Inv. No. 337-TA-963, Order No. 40 (Mar. 3, 2016) at 22-23. The Federal Circuit has made clear that claiming the use of existing devices in purely functional ways, as the claims of this patent do, is insufficient to meet the requirements of § 101. *TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 612 (Fed. Cir. 2016) (finding claims invalid as the specification “[did] not describe a new telephone, a new server, or a new physical combination of the two” and “fail[ed] to provide any technical details for the tangible components, but instead predominately describe[d] the system and methods in purely functional terms”). Likewise, the use of generic computer technology, however “specific” to a particular environment, will not rescue a claim from ineligibility if the functionality described constitutes an abstract idea.

Resps. Br. at 262-64.

Under step two of the *Alice* framework, Comcast argues:

. . . the asserted claims are directed to nothing more than the idea of receiving different types of scheduled events and generating an aggregated list of those events for display, and the claims do not recite any additional limitations that were not well known to a POSITA. RX-

0006C (Rinard WS) Q/A 8, 16. Indeed, the asserted claims do not require any specific hardware or equipment for practicing the claims, but simply and generically recite a “processor,” “first and second interactive electronic program guides,” “user television equipment devices,” and “a memory.”

...

Furthermore, simply reciting a “processor,” “user television equipment devices” and “memory”—all of which were well known in the art and are simply generic components used to carry out the claimed abstract idea (RX-0006C at Q/A 16)—does not add “significantly more” to the abstract idea of receiving different types of scheduled events and generating an aggregated list and does not transform the claims of the ’871 Patent into a patentable-eligible invention. . . .

Resps. Br. at 265. Comcast cites *Netflix v. Rovi*, 114 F. Supp. 3d 927, as an example of “claims in another Rovi patent” that were found patent-ineligible. *Id.* at 266.

For *Alice*’s first step, Rovi argues that claim 12 is not directed to an abstract idea:

. . . rather than claiming a broad, abstract idea like aggregating recordings, the claims of the ’871 Patent recite a specific combination of technology—hardware and software components including a plurality of user

television equipment devices (e.g., set-top boxes) and at least two different interactive electronic program guides, along with precise, step-by-step functions that the hardware and software components must perform. Rinard Tr. 787-89. Together, the claimed system provides the capability of selecting programs of different types for recording from at least two different interactive electronic program guides, aggregates the collective recording events requests from the at least two different interactive electronic program guides, and provides for the display of those aggregated events on each of the different interactive electronic program guides. *Id.* at 3:5-8:17; Rinard Tr. 787-789, 793.

Rovi Br. at 255. Rovi then argues that Comcast has ignored claim the “detailed” requirements of claim 12, that the claims are directed toward “specific improvements to the prior art systems,” and that “inventions claimed in the ’871 Patent enhance data communications and interoperability within a multi-IPG system[.]” *Id.* at 255-56. Rovi then analogizes the claims to the claims in *Enfish* and *McRO*, which the Federal Circuit found patent-eligible. *Id.* at 256 (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336-37 (Fed. Cir. 2016); *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)).

For *Alice*’s second step, Rovi argues:

Each of the asserted claims of the ’871 Patent, taken as an ordered combination

of elements, represents a patent-eligible “application” of a specific solution – not a claim to an idea itself. *See Alice*, 134 S. Ct. at 2355. The ’871 Patent teaches a particular way of improving the conventional operation of IPGs by describing a system that allows users to separately schedule unique recordings through multiple IPGs and user television equipment (*e.g.*, set-top boxes) and aggregate a list of scheduled recordings that can be displayed on any of their devices. Thus, the elements of each asserted claim, in combination, represent a significant inventive concept . . . Respondents have identified no prior system or art that contained each component and function of [claim 12’s] ordered combination. . . .

Rovi Br. at 257. Rovi also argues that claim 12 does not preempt “other program guides” and faults Comcast for not arguing preemption. *Id.* at 258, 260. Rovi then analogizes the contested claims to claims the Federal Circuit found eligible in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014), *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016), and *AmDocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016). *Id.* at 258-59.

In reply, Comcast argues, *inter alia*, that the claims recite generic hardware and that the claims cover activities that humans perform without computers. Resps. Reply at 90-91. Comcast again relies upon *Netflix* and argues that Rovi improperly “seeks to patent the idea of aggregating different types of events

from multiple guides, limited only by the use of a ‘processor’ and ‘memory,’ both of which are generic computer components of the type rejected in *Alice*.” *Id.* at 92.

Rovi replies that the claims have “precise, step-by-step functions” and that “they focus on a specific improvement to such a programming guide system itself.” Rovi Reply at 100. Rovi then faults Comcast for not discussing *AmDocs*, although it does not address *Netflix*. *Id.*

a) Alice Step One: Abstract Idea

In *Netflix v. Rovi*, the Northern District of California found that one of Rovi’s patents directed to locating programs of interest to a user, based on categories, was ineligible.¹²² In particular, the district court focused on claim 11 of U.S. Patent No. 7,945,929, which follows:

11. A system for locating programs of interest to a user, the system comprising:

a receiver that receives a plurality of program listings, wherein at least one of the program listings is associated with two or more simple categories; and

a processor that generates at least one combination category by:

identifying the two or more simple categories associated with the at least one program listing; and

¹²² *Netflix, Inc. v. Rovi Corp.*, 114 F. Supp. 3d 927, 937 (N.D. Cal. 2015), *aff’d*, No. 2015-1917, 2016 WL 6575091 (Fed. Cir. Nov. 7, 2016) (Fed. Cir. R. 36).

combining at least a subset of the identified simple categories associated with the at least one program listing into the at least one combination category, wherein the combination category comprises more than one of the identified simple categories.

114 F. Supp. 3d at 938-39.

The administrative law judge finds that the asserted claims are directed toward an abstract idea. Here, in summary, claim 12 pertains to an IPG system that:

- 1) Receives a selection from a first guide;
- 2) Receives a selection from a second guide;
- 3) Generates a list by aggregating the selections;
- 4) Displays the aggregated list; and
- 5) Stores the selections in a memory.

Claim 12 predominately focuses on aggregating a list from two different inputs. The claim achieves this through function-oriented limitations that are executed using generic, conventional equipment and software.¹²³ This is an abstract idea, devoid of a

¹²³ Like claim 12, dependent claims 13, 17, and 18 are directed toward abstract ideas. Claim 13 pertains to a guide “configured to” select a program for recording, claim 17 pertains to allowing a user to “cancel the recording” selected in claim 12, and claim 18 relates to a processor “configured to allow the user to obtain additional information” about a selection. See *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016), cert. denied, No. 16-1047, 2017 WL 844050 (U.S. Apr. 17, 2017) (“the claims do no more than describe a desired function or outcome, without providing any limiting detail that confines the

concrete or tangible application. See *Netflix v. Rovi*, 114 F. Supp. 3d at 939 (finding that claims directed to “the idea of using composite categories to define shows [are] indeed abstract”); *Broadband iTV, Inc. v. Hawaiian Telcom, Inc.*, 136 F. Supp. 3d 1228, 1237 (D. Haw. 2015) (finding patent directed to using “hierarchical ordering based on metadata to facilitate the display and locating of video content” in an electronic program guide was an abstract idea), *aff’d*, No. 2016-1082, 2016 WL 5361570 (Fed. Cir. 2016); *Tech. Dev. & Licensing, LLC v. Gen. Instrument Corp.*, No. 07-cv-4512, 2016 WL 7104253, at *4-5 (N.D. Ill. Dec. 6, 2016) (finding claims directed toward a television control system for accessing favorite channels lists was an abstract idea).

b) Alice Step Two: Inventive Concept

The administrative law judge has determined that Comcast has not met its burden of demonstrating that the ’871 Patent’s claims are directed toward ineligible subject matter.¹²⁴

Rovi compares the ’871 Patent’s claims to *Enfish*, “where the court deemed claims that focused on a specific improvement to computer functionality patent-eligible, the asserted claims here focus on a specific improvement—the aggregation of event settings (received from at least two different IPGs) in a local or remote database so that a user can view all

claim to a particular solution to an identified problem. The purely functional nature of the claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea.”).

¹²⁴ The administrative law judge finds Comcast has not met its burden under both the preponderance-of-the-evidence and clear-and-convincing standards.

events set from any of the IPGs in the system. This is in contrast to ‘economic or other tasks for which a computer is used in its ordinary capacity.’” Rovi Br. at 257 (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336-37 (Fed. Cir. 2016)). Rovi then argues that “The ’871 Patent teaches a particular way of improving the conventional operation of IPGs by describing a system that allows users to separately schedule unique recordings through multiple IPGs and user television equipment (e.g., set-top boxes) and aggregate a list of scheduled recordings that can be displayed on any of their devices.” *Id.* at 257-58.

Rovi then also draws an analogy between the challenged claims and *Bascom*. See Rovi Br. at 259. In *Bascom*, the Federal Circuit identified that the patent-eligible inventive concept was “the installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server.” *Bascom*, 827 F.3d at 1350. Rovi argues:

Just as the claims to a filtering tool that worked in an unconventional way in *Bascom* were an inventive concept, the solution claimed in the ’871 Patent has no conventional counterpart. The claimed solution of the ’871 Patent improves the conventional operation of IPGs by allowing users to separately and seamlessly schedule unique recordings through multiple IPGs and user television equipment such as set-top boxes and aggregate a list of scheduled recordings from the different IPGs for

display on any of the devices. The '871 Patent here, like the patent in *Bascom*, is “claiming a technology-based solution (not an abstract-idea-based solution implemented with generic technical components in a conventional way) to ... overcome[] existing problems with” prior art systems. *See Bascom*, 827 F.3d at 1351.

Rovi Br. at 259.

Comcast argues that Rovi’s analogy to *Bascom* “is to no avail” because claim 12 is directed toward conventional concepts that seek to patent “the idea of aggregating different types of events from multiple guides, limited only by” a processor and memory. *See Resps. Reply* at 91-92.

Here, the particular arrangement of claimed elements involves a system that facilitates input from multiple guides, aggregates that input into a useful form that allows a first user to see a second user’s activity. The invention allows users to avoid duplicative purchases and also provides parents with a tangible system that offers “control over whether they wish their children to watch the potentially objectionable content of some news and sports programs.” *See JX-0004* at 9:56-59, 9:1-17; Rovi Reply at 99 (“The asserted claims of the '871 Patent enhance data communications and interoperability within an IPG system by enabling set-top boxes to share information from multiple IPGs within the same household so that one IPG can display data added or modified by another IPG in the system.”). This is more than just aggregating recordings, as Comcast argues. Further, the physical limitations in claim 12 are

meaningful, as the administrative law judge found that the accused X1 products did not infringe at least because Rovi had not shown that the X1 set-top boxes include guides that satisfy limitation 12d. *See generally* Section IV(D)(4)(a)(4)(c).

Accordingly, the administrative law judge has determined that Comcast has not met its burden of demonstrating that the '817 Patent lacks an inventive concept.

8. Validity

a) Anticipation

At the outset, Comcast explains:

The prior art in this case presents two kinds of invalidating reads. The first kind has the first and second guides executing on different devices, with the devices communicating via a home network. References that disclose guides executing on different devices and communicating via a home network include Akamatsu, which is RX-0223; Humpleman, which is RX-0224; and the Ellis applications, which include RX-0057, RX-0074, RX-0075, and RX-0076. The second kind has the first and second guides executing on the same device, with the guides sharing the memory on the device. References that disclose a first and second guide executing on the same device include Humpleman (RX-0224), Alexander, which is RX-0225, and Browne, which is RX-0226.

Resps. Br. at 267 n.38; *see also* RX-0006C (Rinard WS) at Q/A 51.

(1) Akamatsu (RX-0223)

Comcast argues that Japanese patent application to Akamatsu et al. (RX-0223) (Japanese Patent App. No. H11-177919) (“Akamatsu”) anticipates the ’871 Patent’s asserted claims. *See* Resps. Br. at 267-68. Akamatsu’s U.S. counterpart, which would issue as U.S. Patent No. 7,224,886, is cited on page 4 of the ’871 Patent. *See* JX-0004 at 4; RX-0223 at 1 (field (21) lists Application No. H09-336796); U.S. Patent No. 7,224,886 at 1 (field (30) shows a foreign priority claim to JP 09-336796).

Comcast presents a “two-device read” for Akamatsu. *See* Resps. Br. at 267 & n.38; *see also* RX-0006C (Rinard WS) at Q/A 51. Comcast’s entire argument is:

Akamatsu presents a system with two satellite television receivers, a video recording device, and a television monitor (among other devices). RX-0223 (Akamatsu). As Dr. Rinard explained in his testimony, the disclosure of Akamatsu anticipates *[sic]* the asserted claims under Rovi’s construction, in which there is no “single device” restriction. RX-0006C at Q/A 53-58. Each guide runs on a different receiver, and Figure 8 discloses a “Recording Device Reservation Overview,” which is a list of events generated by aggregating the received scheduled events. RX-0223 at Fig. 8; RDX-0540. The list is accessible for display from both guides. Moreover,

the events are stored in a memory in the video recording device. Akamatsu discloses that this memory can be read and written by the satellite television receivers.

Dr. Delp's assertion that Akamatsu discloses only the user interface to separate interactive electronic program guides is incorrect. CX-1903C (Delp RWS) at Q/A 228. Dr. Delp himself repeatedly asserts that infringement is apparent from the use and operation (*i.e.*, the user interface) of the X1 system. Tr. 1027:3-14; 1029:15-24; 1040:15-22. Dr. Delp cannot consistently claim to find infringement based only observing the user interface while also taking the position that Akamatsu does not anticipate because, in his view, it only discloses a user interface.

Id. at 267-68; *see also* RX-0006C (Rinard WS) at Q/A 53-58, 68, 75, 83, 90, 97, 104, 110, 116, 122, and 128 (Dr. Rinard discusses Akamatsu in at least these portions of his witness statement).

Rovi argues that "Akamatsu is not prior art because it was 'laid open' on July 2, 1999, almost one year after the inventions claimed in the '871 Patent were conceived." Rovi Br. at 240 (citing CX-1903C (Delp RWS) at Q/A 226; RX-0223 at 1). Rovi also argues that Akamatsu also does not disclose a system with two guides.

Based upon the arguments and evidence presented in the briefs, the administrative law judge has determined that Akamatsu is prior art to the '871

Patent. Comcast has put forth a *prima facie* case of invalidity, but Rovi has not identified sufficient rebuttal evidence to prove entitlement to an earlier invention date. See *Taurus IP, LLC v. DaimlerChrysler Corp.*, 126 F.3d 1306, 1322 (Fed. Cir. 2013) (“After an accused infringer has put forth a *prima facie* case of invalidity, the burden of production shifts to the patent owner to produce sufficient rebuttal evidence to prove entitlement to an earlier invention date.”). The testimony that Rovi relies upon is conclusory. See, e.g, CX-0004C (Delp WS) at Q/A 30 (“Based on information in the file history, I believe StarSight had a working system to demonstrate each of the features by the July 15, 2005 filing date of the application for the ’871 Patent, and the provisional applications show that StarSight was diligent to the filing date.”). Dr. Delp also confirmed that CX-1343 (StarSight Interactive Program Guide Product Definition), which is U.S. Provisional Application No. 60/094,564, did not disclose recording programs or autotunes as events. See Tr. 1209-1213; CX-0004C (Delp WS) at Q/A 29 (discussing CX-1343, CX-0871, and the ’871 Patent’s priority date).

Nevertheless, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that Akamatsu teaches a second interactive program guide (limitations 12a, 12c, 12d, and 12e). In Q/A 227, Dr. Delp opined as follows:

Q227. Dr. Rinard contends that Akamatsu anticipates the ’871 Patent. What is your opinion of his argument?

A227. I disagree with Dr. Rinard. As I said above, Akamatsu is not prior art. It also does not disclose each of the '871 claim limitations. Dr. Rinard asserts that Akamatsu discloses "the two guides run on satellite broadcast receivers 100a and 100b." RX-006C (Rinard Witness Statement) at A53. Dr. Rinard is incorrect. To the extent that Akamatsu discloses a first interactive electronic programming guide, it never discloses a second interactive electronic programming guide.

Dr. Rinard repeatedly cites to Figure 6 and accompanying text of Akamatsu to show the multiple interactive electronic programming guides claimed in the '871 Patent. However, Figure 6, and the corresponding disclosure in paragraph, 34 teach that "a program guide is displayed." This singular program guide is only displayed on one screen (*e.g.*, a liquid crystal display or monitor). Akamatsu ¶ 42, 117. As shown in Figure 1 of Akamatsu (which Dr. Rinard relies upon), there is only one monitor connected to Akamatsu's system.

An AV system in which various AV device such as satellite broadcast receivers 100a, 100b, and ***a monitor 120*** are connected by a control bus 10, and timer reservation portions 104, 114, including reservation data

management portions 105, 115,
are disposed within each AV
device.

RX-0223 (Akamatsu) at p.2. Indeed,
“guide” and “monitor” are always
referred to in the singular in Akamatsu.
Thus, to the extent “a program guide”
disclosed by Akamatsu is at least a “first
interactive electronic program guide”
(it’s not clear that is), there is no
disclosure of a “second interactive
electronic program guide.”

CX-1903C (Delp RWS) at Q/A 227 (emphasis in
original).

While Akamatsu teaches a second satellite
broadcast receiver (100b), the reference is too vague
and equivocal with regard to where the second
interactive program guide resides, what the second
guide does, and how it interacts with the first guide to
satisfy the clear-and-convincing standard. *See Pfizer,
Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1360 n.5 (Fed. Cir.
2007) (Clear and convincing evidence provides “the
ultimate factfinder [with] an abiding conviction that
the truth of its factual contentions are highly
probable.”) (quoting *Colorado v. New Mexico*, 467 U.S.
310, 316 (1984)); *ActiveVideo Networks*, 694 F.3d at
1327 (Fed. Cir. 2012) (same); *see also* CX-1903C (Delp
RWS) at Q/A 227.

(2) *Alexander (RX-0225)*

Comcast argues that published International
patent application to Alexander et al. (RX-0225) (Int’l
Pub. No. WO 1999/04561) (“Alexander”) anticipates
the ’871 Patent’s asserted claims. *See* Resps. Br. at

268. Alexander is cited on page 5 of the '871 Patent. *See* JX-0004 at 5.

Comcast presents a “one-device read” for Alexander. *See* Resps. Br. at 267 & n.38; RX-0006C (Rinard WS) at Q/A 51. Comcast’s entire argument is:

In the RX-0225 (Alexander) references [sic], theres [sic] is a single devices [sic], with the first guide as a parent guide and a second guide as a child guide. Both guides can display a Watch/Record list that includes the first and second events of different types. As Dr. Rinard explained in his testimony, Alexander invalidates the asserted claims of the '871 Patent under both parties’ proposed claim constructions since it is in a single device. RX-0006C at Q/A 59-61.

Resps. Br. at 268; *see also* RX-0006C (Rinard WS) at Q/A 59-61, 69, 76, 84, 89, 91, 98, 103, 113, 123, and 129 (Dr. Rinard discusses Alexander in at least these portions of his witness statement).

The administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that Alexander teaches guides that are located in the household (limitations 12d / elements i and vii).¹²⁵ *See* RX-0849C (Rinard RWS) at Q/A 34 (“Claim 12 confirms that the IPG application must be executed and embodied in the household instead of on remote hardware located at a headend: “the first and

¹²⁵ The administrative law judge previously construed “located in a household” to mean “kept and used at home.” *See* Section VI(D)(2)(b)(5).

second interactive electronic program guides *in the household.*" (emphasis added by witness)).

Further, with respect to the "shared memories" element (limitation 12e / element ix), Comcast has collected quotations from Alexander and Yuen without explaining how those portions teach a memory accessible to two guides. These deficiencies prevent Comcast from satisfying its clear and convincing burden. *See Pfizer*, 480 F.3d at 1360 n.5 (Fed. Cir. 2007) (Clear and convincing evidence provides "the ultimate factfinder [with] an abiding conviction that the truth of its factual contentions are highly probable."").

(3) *Browne (RX-0226)*

Comcast argues that published International patent application to Browne and Yurt (RX-0226) (Int'l Pub. No. WO 1992/22983) ("Browne") anticipates the '871 Patent's asserted claims. *See Resps. Br.* at 268. Browne is cited on page 5 of the '871 Patent. *See JX-0004* at 5.

Comcast presents a "one-device read" for Browne. *See Resps. Br.* at 267 & n.38; *see also* RX-0006C (Rinard WS) at Q/A 51. Comcast's entire argument is:

Browne discloses first and second guides executing on a multi-user recorder player device. RX-0226. As Dr. Rinard explained in his testimony, Browne invalidates the asserted claims of the '871 Patent. RX-0006C at Q/A 62.

Resps. Br. at 268; *see also* RX-0006C (Rinard WS) at Q/A 62, 70, 77, 85, 89, 92, 99, 103, 105, 117, and 124 (Dr. Rinard discusses Browne in at least these portions of his witness statement).

The administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that Browne teaches guides that are located in the household (limitations 12d / elements i, ii, and vii).¹²⁶ See RX-0849C (Rinard RWS) at Q/A 34 (“Claim 12 confirms that the IPG application must be executed and embodied in the household instead of on remote hardware located at a headend: “the first and second interactive electronic program guides *in the household*.” (emphasis added by witness)).

Dr. Rinard’s testimony RX-0006C (Rinard WS) at Q/A 77, for “interactive electronic program guides,” element ii, follows:

Q77. What does Browne disclose with regard to this element?

A77. RX-0226 (Browne) Figure 6, shown in RDX-0528 presents an example screen from an interactive electronic program guide.

This is a reproduction of Figure 6:

¹²⁶ The administrative law judge construed the term “interactive electronic program guide” to mean “guide that allows navigation through television program listings and causes display of program information on user television equipment.”

FIG. 6

600

FREE PROGRAM MEMORY								4.75 HRS	
#	LOCKED	TITLE	SOURCE	CHANNEL	TIME	DATE	LENGTH	NOTES	VIEWED
1	<input type="checkbox"/>	-- NOT YET --	VHF	4	4:00 - 4:30	MAY 17, 1991	0.5	NOT YET RECORDED	<input type="checkbox"/>
2	<input type="checkbox"/>	--	FM	99.5	1:12 - 1:20	MAY 15, 1991	0.12		<input checked="" type="checkbox"/>
3	<input type="checkbox"/>	NIGHTLY NEWS	VHF #	4	6:00 - 8:00	MAY 13, 1991	2.0		<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	BATMAN	CABLE	29	8:00 - 10:00	DEC 28, 1990	2.0	KEEP FOR WENDY	<input type="checkbox"/>
5	<input type="checkbox"/>	THE ASTRONOMERS	VHF	13	6:30 - 7:30	MAY 13, 1991	1.0		<input type="checkbox"/>

Browne describes this as a “stored program list” selected from the main menu control screen. *See* RX-0226 at 7, 26 (pages 5 and 24 of the specification) (“The stored program list screen 600 shown in Fig. 6, may preferably include list of all stored programs.”). Browne also describes a “user control program” that differs from the stored program list shown in Figure 6:

Controller 105 is a microprocessor which preferably runs a user control program and allows a user to access and control the multi-source recorder player 100. The user control section, which is described in greater detail with respect to Figs. 2-11, preferably acts similarly to the graphical interface provided by the Windows product sold by Microsoft Inc. Selections are made via remote control with cursor positioning device such as mouse or trackball.

RX-0226 at 15 (page 13 of the specification); *see also id.* at 16 (page 14 of the specification, which discusses

using “an Apple Macintosh computer with multiple screens”). Comcast has not clearly and convincingly shown that Browne teaches an interactive program guide that “allows navigation through television program listings and causes display of program information on user television equipment,” because there is no discussion of how the system allows a user to navigate through television program listings. Further, Comcast has not shown that Browne teaches limitation 12d, because there has not been a sufficient showing that the guides are kept and used in the household. *See* RX-0006C (Rinard WS) at Q/A 109-10 (Browne is not identified as meeting the “in the household” limitation).

b) Obviousness

Comcast has relied upon the following references in its obviousness arguments:

- 1) **Akamatsu (RX-0223):** Japanese Patent App. No. H11-177919
- 2) **Browne (RX-0226):** Int’l Pub. No. WO 1992/22983
- 3) **Alexander (RX-0225):** Int’l Pub. No. WO 1999/0456
- 4) **Humpleman (RX-0224):** U.S. Patent No. 6,288,716
- 5) **Ellis Reference #1 (RX-0057):** U.S. Pat. Pub. No. 2005/0251827 (Ellis ‘827 application)
- 6) **Ellis Reference #2 (RX-0074):** U.S. Prov. App. No. 60/093,292 (Ellis ‘292 “UV-73” provisional application)

- 7) **Ellis Reference #3 (RX-0075):** U.S. Prov. App. No. 60/097,527 (Ellis '527 "UV-99" provisional application)
- 8) **Ellis Reference #4 (RX-0076):** U.S. Pat. Pub. No. 2005/0028208 (Ellis '208 application).
- 9) **LaJoie (RX-0222):** U.S. Patent No. 6,772,433
- 10) **Knudson / Knudson '968¹²⁷ (RX-0066):** U.S. Pat. Pub. No. 2005/0240968
- 11) **Prevue (RX-0072C):** Prevue Interactive Reference Guide - DCT 1000, VI.2
- 12) **Usui (RX-0236):** U.S. Patent No. 5,808,694
- 13) **Ho (RX-0221):** U.S. Patent No. 6,622,307
- 14) **Byrne (RX-0227):** U.S. Patent No. 5,990,883
- 15) **Hatakeyama (RX-0369):** A. Hatakeyama Home Information Server
- 16) **Knudson '888 (RX-0832):** "Provisional Application for Patent No. UV-56 Prov."
- 17) **Yuen (RX-0204):** Int'l Pub. No. WO 96/07270
- 18) **A "standard operating systems textbook" (RX-0229):** "The Design of the UNIX Operating System (1st Edition) by Maurice Bach"
- 19) **A "standard operating systems textbook" (RX-0235):** "Operating Systems Design and Implementation (2nd Edition) by Tanenbaum and Woodhull"

¹²⁷ Comcast's nomenclature varies.

20) **A “standard operating systems textbook” (RX-0228):** “Distributed Operating Systems Concepts and Design”

See generally Resps. Br., Section X(E)(3); RX-0006C (Rinard WS), Section VI(2).¹²⁸

When examining Dr. Rinard, Comcast’s counsel divided claim 12 into the following elements:

- i. A system for displaying interactive electronic program guides, the system comprising a plurality of user television devices located in the household;
- ii. Interactive electronic program guides;
- iii. First and second interactive electronic program guides;
- iv. Receiving a first event of a first type and a second event of a second type;
- v. Generating a list of scheduled events by aggregating received scheduled events;
- vi. Lists of received scheduled events accessible for display;
- vii. Home networks;
- viii. Shared memories; and
- ix. Memories for storing received first and second events.

See generally RX-0006C (Rinard WS) at i-ii (table of contents), Q/A 66-130.

¹²⁸ Comcast has also filed two petitions for *inter partes* review of the ’871 Patent that rely upon overlapping references.

For reference, the following table compares Comcast and Rovi's breakdown of the element subdivisions for claim 12:

Comcast's Subdivisions	Rovi's Subdivisions
i.	12pre and 12a
ii.	12pre and 12a
iii.	12a (and 12b-e)
iv.	12b and 12c
v.	12d
vi.	12d
vii.	12d
viii.	12e
ix.	12e

(1) Alexander (RX-0225), in combination-with Humpleman (RX-0224), the Ellis references (RX-0057, RX-0074, RX-0075, and/or RX-0076), or Akamatsu (RX-0223) (and Sinha (RX-0228) and Ho (RX-0221))

Comcast's entire obviousness argument for this combination of references is:

Alexander anticipates the asserted claims, as described above. Dr. Rinard testified that Alexander could also be combined with other references to render obvious the asserted claims. RX-0006C at Q/A 135-145. These combinations

used Alexander in combination with other references and multiple devices in a house - invalidating the asserted claims of the '871 Patent under Rovi's proposed claim constructions and apparent interpretation of the asserted claims. *Id.*

Resps. Br. at 286.

Dr. Rinard opined that “Alexander is combined with the knowledge of a person of skill in the art” and then refers to Ellis and Ho. RX-0006 (Rinard WS) at Q/A 135. Dr. Rinard does not identify which claim limitations are taught by Ellis or Ho, why one of ordinary skill in the art would assemble these references—Alexander, the Ellis references, or Ho—to solve the problems identified in the art, or why one of ordinary skill in the art would modify Alexander, the primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”); *see generally* RX-0006C (Rinard WS) at Q/A 8-16, 65 (discussing the state of the art).¹²⁹ Although Dr. Rinard opined that a person of ordinary skill in the art would be motivated to combine the references in “all of the combinations” he presented “to obtain a system that better satisfies user needs,” RX-0006C (Rinard WS) at Q/A 217, this testimony is deficient because it does not provide a rational basis for combining a particular combination of references. *See ActiveVideo Networks*.¹³⁰ The

¹²⁹ *See* n.92, *supra*.

¹³⁰ In *ActiveVideo Networks*, the Federal Circuit affirmed the grant of a JMOL that reversed jury's finding of obviousness after

remainder of Dr. Rinard's testimony about additional Alexander combinations, RX-0006C (Rinard WS) at Q/A 136 (discussing a combination involving "Humpleman, Ellis, or Akamatsu," an alternative combination involving no references, and another alternative combination involving one of the systems textbooks, RX-0228 (Sinha)), suffers the same deficiencies. *See id.*; *see also* CX-1903C (Delp RWS) at Q/A 248-49.

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(2) *Akamatsu (RX-0223), in combination with LaJoie (RX-0222), Alexander (RX-0225), Browne (RX-0226), Knudson (RX-0066), or Prevue (RX-0072C) and/or the Knowledge of a Person of Skill in the Art*

Comcast's entire obviousness argument for this combination of references is:

finding that the expert's "testimony is generic and bears no relation to any specific combination of prior art elements. It also fails, to explain why a person of ordinary skill in the art would have combined elements from specific references *in the way the claimed invention does*" *ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012) (emphasis in original). The insufficient expert testimony was: "The motivation to combine would be because you wanted to build something better. You wanted a system that was more efficient, cheaper, or you wanted a system that had more features, makes it more attractive to your customers, because by combining these two things you could do something new that hadn't been able to do before." *Id.* at 1328.

As described above, Akamatsu anticipates the asserted claims of the '871 Patent. Akamatsu could also be combined as a system reference disclosing multiple guides with guide functionality references that disclose the remaining required guide features. As disclosed in Akamatsu, a first guide executes on a first satellite receiver and a second guide executes on a second satellite receiver. LaJoie, Alexander, Browne, Knudson, or Prevue and/or knowledge of a person of skill in the art disclose remaining guide elements. RX-0006 at Q/A 146-150.

Resps. Br. at 286.

Dr. Rinard opined, as follows:

Q146. I would like to direct your attention to RX-0223, which is the Akamatsu reference. What references would a person of ordinary skill combine with the Akamatsu reference?

A146. My combination reads combine Akamatsu as a system architecture reference disclosing multiple guides with a guide functionality reference or references that disclose the remaining required guide features. I discussed the details of those elements[.] As disclosed in Akamatsu, a first guide executes on a first satellite receiver and a second guide executes on a second satellite receiver. LaJoie, Alexander, Browne, Knudson, or

Prevue and/or knowledge of a person of skill in the art disclose the remaining guide elements. The received first and second events are stored in the memory of the recording device as disclosed in Akamatsu. This memory is accessible to both guides via the home network as disclosed in Akamatsu. The combinations invalidate the asserted claims of the '871 Patent under Rovi's proposed claim constructions.

Specifically, Akamatsu discloses a system with satellite receivers 100a and 100b, a monitor, and a recording device 110 among other devices. The satellite receivers "have the same constitution" and both run interactive electronic program guides. The first guide runs on receiver 100a and the second guide runs on receiver 100b. Akamatsu discloses how the user can use the first guide executing on receiver 100a to schedule a first event of a first type (for example, a record event) and a second guide executing on receiver 100b to schedule a second event of a second type (for example, a playback event). Akamatsu also discloses a list that includes the events, with the list accessible for display from either guide as the claims require, as I testified about earlier.

RX-0006C (Rinard WS) at Q/A 146.

Dr. Delp opined that:

. . . with respect to LaJoie, Alexander, Browne, Knudson or Prevue, Dr. Rinard has failed to identify with specificity (1) any basis for combining these references with Akamatsu; (2) any disclosure within any of these references reflecting that it would have been combined with or incorporated into the system of Akamatsu; and (3) how any such feature or disclosure from these references would have been combined with or incorporated into the system of Akamatsu.”

CX-1903C (Delp RWS) at Q/A 254.

Dr. Rinard does not explain how or why one of ordinary skill in the art would assemble these references—Akamatsu, LaJoie, Alexander, Browne, Knudson, or Prevue and/or the knowledge of a person of skill in the art—to solve the problems identified in the art, or why one of ordinary skill in the art would modify Akamatsu, the primary reference. *See Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013) (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”).¹³¹ The remainder of Dr. Rinard’s testimony about the Akamatsu combinations just rehashes the anticipation argument. RX-0006C (Rinard WS) at Q/A 147-50 (Akamatsu is the only reference discussed).

¹³¹ See n.92, *supra*.

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(3) Browne (RX-0226), in combination with LaJoie (RX-0222), Alexander (RX-0225), Knudson (RX-0066), or Prevue (RX-0072C) references and/or the Knowledge of a Person of Skill in the Art (and Knudson '888 (RX-0832))

Comcast's entire obviousness argument for this combination of references is:

As noted above, Browne anticipates the asserted claims of the 871 Patent. It can also be combined as a system architecture reference disclosing multiple guides with a guide functionality reference or references that disclose the remaining required guide features. Dr. Rinard described the details of how this would have been accomplished. RX-0006 at Q/A 151-162.

Resps. Br. at 287.

Dr. Rinard's testimony about Browne as a primary reference essentially substitutes "Browne" for Akamatsu. *Compare* RX-0006 (Rinard WS) at Q/A 146 *with id.* at Q/A 151. Although Dr. Rinard opines about "remaining guide elements" that are missing from Browne, he does not identify which claim limitations are taught by the four references "and/or" the knowledge of a person of skill in the art. *See id.* at Q/A 151. Further, Dr. Rinard does not explain how or why

one of ordinary skill in the art would assemble these references—Browne, LaJoie, Alexander, Knudson, or Prevue and/or the knowledge of a person of skill in the art—to solve the problems identified in the art, or why one of ordinary skill in the art would modify Browne, the primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”).¹³² The remainder of Dr. Rinard’s testimony about the Browne combinations mostly rehashes the anticipation argument, with an unexplained reliance on Knudson ‘888 (RX-0832). *See* RX-0006C (Rinard WS) at Q/A 153-62 (Dr. Rinard never introduces Knudson ‘888 or explains why he is relying on it).

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(4) *Humpleman* (RX-0224), in combination with either *Knudson* (RX-0066), *LaJoie* (RX-0222), *Alexander* (RX-0225), *Prevue* (RX-0072C), or *Browne* (RX-0226)

Comcast’s entire obviousness argument for this combination of references is:

The relevant combinations combine Humpleman as a system architecture reference with a guide functionality

¹³² *See* n. 92, *supra*.

reference or references disclosing the remaining guide elements. As Dr. Rinard testified, there are two ways these references could be combined: a “two HTML guides” read, and a “one HTML, one native guide” read. RX-0006 at Q/A 163-173.

Resps. Br. at 287.¹³³

Dr. Rinard opined that:

. . . Combining Humpleman with any of the interactive electronic program guides disclosed in Knudson, LaJoie, Alexander, Browne, and/or knowledge of a person of ordinary skill in the art in any one of the following ways, results in an obvious system that meets every limitation of the asserted claims under Rovi’s proposed construction.

RX-0006C (Rinard WS) at Q/A 163. Dr. Rinard then presents two “reads,” each of which involve combinations with “LaJoie, Alexander, Browne, Knudson, or Prevue.” *See id.* at Q/A 164-65. Dr. Rinard does not explain how or why one of ordinary skill in the art would assemble these references—Humpleman, LaJoie, Alexander, Browne, Knudson, or Prevue—to solve the problems identified in the art, or why one of ordinary skill in the art would modify Humpleman, the primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior

¹³³ Humpleman is cited on page 4 of the ’871 Patent. *See* JX-0004 at 4.

art in such a way as to lead to an obviousness rejection.”).¹³⁴

Further, Dr. Rinard has not clearly identified a memory accessible to the first and second guides in Humpleman (limitation 12e). *See generally* RX-0006C (Rinard WS) at Q/A 111-119 (Humpleman is not among the references discussed as having memory).

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(5) The Ellis references (RX-0057, RX-0074, RX-0075, and/or RX-0076), in combination with LaJoie (RX-0222), Alexander (RX-0225), Browne (RX-0026), Knudson (RX-0066), or Prevue (RX-0072C) and/or the Knowledge of a Person of Skill in the Art

Comcast’s entire obviousness argument for this combination of references is:

RX-0057 (Ellis ‘827 application), RX-0074 (Ellis ‘292 “UV-73” provisional application), RX-0075 (Ellis ‘527 “UV-99” provisional application), and RX-0076 (Ellis ‘208 application) are the Ellis references. The Ellis non-provisionals benefit from the priority date of the provisional applications because those provisional support the subject matter of the non-provisionals. Notably,

¹³⁴ See n.92, *supra*.

throughout the extensive prosecution of the '871 Patent, Rovi failed to show that Ellis was not prior art.

As Dr. Rinard explained in his testimony, in these combinations Ellis is the system architecture reference. Ellis discloses a first device running a first program guide and a second device running a second program guide, communicating over an in-home network. LaJoie, Alexander, Knudson, Browne, or the Prevue guide and/or knowledge of a person of skill in the art are program guide functionality references that disclose the remaining guide elements. RX-0006C at Q/A 174-188. In particular, it would have been obvious to combine references and products like LaJoie and Prevue, for example, which were developed by the same company.

Resps. Br. at 287-88.¹³⁵

Dr. Rinard opines, as follows:

¹³⁵ Ellis '827 (RX-0057) and Ellis '208 (RX-0076), which were considered by the Examiner, are cited on page 4 of the '871 Patent. *See* JX-0004 at 4. Ellis '292 (RX-0074) and Ellis '527 (RX-0075) were also before the Examiner. *See* RX-0006C (Rinard WS) at Q/A 20 (explaining that the "The examiner took the position that the provisionals that Ellis and Ellis '208 relied on, specifically Ellis application No. 60/093292 ("Ellis '292"), which is RX-0074 and Ellis application No. 60/097527 ("Ellis '527"), which is RX-0075, supported the claim rejections."). *See also* CX-1903C (Delp RWS) at Q/A 275 (providing background on the Ellis references).

Q174. Next I would like to direct your attention to RX-0057, RX-0074, RX-0075, and RX-0076, which are the Ellis references. What references would a person of ordinary skill combine with Ellis?

A174. In these reads Ellis is the system architecture reference. Ellis discloses a first device running a first program guide and a second device running a second program guide. The devices communicate over an in-home network. LaJoie, Alexander, Knudson, or the Prevue guide and/or knowledge of a person of skill in the art are program guide functionality references that disclose the remaining guide elements (first and second events of first and second types, aggregating events into a list accessible for display from both guides, storing the events in a memory accessible to both guides). In particular, it would have been obvious to combine references and products like LaJoie and Prevue, for example, which were developed by the same company.

For example, Knudson discloses a first event of a first type (specifically, a reminder event) and a second event of a second type (specifically, a record event). Alternatively, Knudson also discloses reminder, auto-tune, and recording events for individual programs and for series. Knudson also discloses a single

list of events that includes all upcoming and reminder events. This list is generated by aggregating the first and second events. Alternatively, the other guide references (LaJoie, Alexander, Browne, and Prevue) as well as the knowledge of a person of ordinary skill in the art similarly disclose the required claim elements. For example, Figure 14 from LaJoie discloses an “Events Summary,” which is a list of events generated by aggregating the received scheduled events. This is visible in RDX-0557. These reads invalidate the asserted independent claims of the ’871 Patent under Rovi’s proposed claim constructions.

RX-0006C (Rinard WS) at Q/A 174.

Dr. Rinard has not identified which of the four Ellis references is a primary reference for this obviousness combination, why one of ordinary skill in the art would assemble these nine references “and/or” ordinary knowledge—the Ellis references, LaJoie, Alexander, Browne, Knudson, or Prevue and/or the knowledge of a person of skill in the art—to solve the problems identified in the art, or why one of ordinary skill in the art would modify the unspecified primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”); *See generally* RX-0006C

(Rinard WS) at Q/A 8-16, 65 (discussing the state of the art).¹³⁶

Further, Dr. Rinard has not clearly identified where Ellis explains aggregating a list of scheduled events (limitation 12d). *See* CX-1903C (Delp RWS) at Q/A 284. Dr. Rinard opines, as follows:

Q180. Rovi contends that Ellis ‘292 is silent on aggregating the list of the received scheduled events. What is your opinion of this argument?

A180. In my analysis of Ellis, this limitation is disclosed in a program guide functionality reference and/or knowledge of a person of skill in the art combined with Ellis.

RX-0006C (Rinard WS) at Q/A 179-80.

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(6) LaJoie (RX-0222), in combination with either Alexander (RX-0225), Usui (RX-0236), Byrne (RX-0227), Browne (RX-0226) and/or the Knowledge of a Person of Skill in the Art

Comcast’s entire obviousness argument for this combination of references is:

LaJoie discloses a comprehensive set of IPG features. As Dr. Rinard explained, it

¹³⁶ *See* n. 92, *supra*.

would have been obvious for a POSITA to combine LaJoie with any number of architecture references. RX-0006C at Q/A 189-204.

Resps. Br. at 288.¹³⁷

Dr. Rinard does not identify which claim limitations are taught by LaJoie, why one of ordinary skill in the art would assemble these references—LaJoie, Alexander Usui, Byrne, Browne, and/or the knowledge of a person of skill in the art—to solve the problems identified in the art, or why one of ordinary skill in the art would modify LaJoie, the primary reference. *See Plantronics*, 724 F.3d at 1354 (“Where, as here, the necessary reasoning is absent, we cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’”); *see generally* RX-0006C (Rinard WS) at Q/A 8-16, 65 (discussing the state of the art); CX-1903C (Delp RWS) at Q/A 287 (“Despite Dr. Rinard’s assertions, he offers no evidence for why a person of ordinary skill in the art, using only LaJoie, would be motivated to combine LaJoie with a system with multiple set-top boxes using a shared memory system.”).¹³⁸

Further, Dr. Rinard has not clearly identified a second guide in LaJoie (limitations 12a and 12c). *See* CX-1903C (Delp RWS) at Q/A 288 (“neither Alexander nor LaJoie disclose multiple interactive program guides”); *see generally* RX-0006C (Rinard WS) at Q/A

¹³⁷ LaJoie, which was considered by the Examiner, is cited on page 4 of the ’871 Patent. *See* JX-0004 at 4; CX-1903C (Delp RWS) at Q/A 292.

¹³⁸ *See* n. 92, *supra*.

82-89 (LaJoie is not among the references discussed as having first and second interactive electronic program guides).

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(7) Hatakeyama (RX-0369), in combination with LaJoie (RX-0222), Alexander (RX-0225), Knudson (RX-0066), or Prevue (RX-0072C) and/or the Knowledge of a Person of Skill in the Art

Comcast's entire obviousness argument for this combination of references is:

Hatakeyama can be combined with other references as a system architecture reference disclosing multiple guides with a guide functionality reference or references that disclose the remaining required guide features. RX-0006C at Q/A 205.

Resps. Br. at 288. This is the opinion relating to Hatakeyama:

Q205. Next I would like to direct your attention to RX-0369, which is the Hatakeyama reference. What references would a person of ordinary skill combine with Hatakeyama?

A205. My reads combine Hatakeyama as a system architecture reference disclosing multiple guides with a guide functionality reference or references that disclose the remaining required guide features. As disclosed in Hatakeyama, the first guide executes on a first home personal computer and the second guide executes on a second home personal

RX-0006C (Rinard WS) at Q/A 205.

Comcast's counsel did not directly ask Dr. Rinard what Hatakeyama teaches or how Hatakeyama in combination with four references "and/or" the knowledge of a person of ordinary skill teaches each and every limitation of claim 12. For instance, Dr. Rinard has not explained how Hatakeyama, or Hatakeyama in combination with these references, teaches a memory accessible to the first and second interactive electronic program guides or a system that receives a second event of a second type (sent from a second IPG). See RX-0006C (Rinard WS) at Q/A 209-10. Thus, Comcast's argument fails to analyze the scope and content of the prior art or the differences between the prior art and claim 12. See *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966) ("Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved."); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007) (in addition to secondary considerations, these "factors continue to define the inquiry that controls.").

Accordingly, the administrative law judge has determined that Comcast has not shown, through

clear and convincing evidence, that the asserted claims, as a whole, would have been obvious in view of the above references.

(8) Secondary Considerations

Rovi argues that the '871 Patent was a commercial success and that a long-felt need both support its argument that the '871 Patent is not obvious. *See* Rovi Br. at 250-54.

Comcast argues that “contemporaneous conception of the claimed subject matter by others in the same field” indicates that the '871 Patent is obvious. Resps. Br. at 288. Comcast also argues that “evidence and factors cited by Rovi are conclusory, and the same features were successful in the prior art” and that Rovi has failed to meet the nexus requirement. *Id.* at 288-89.

(a) Commercial Success

The administrative law judge has determined that Rovi has not made a showing that the '871 Patent was commercially successful because it has not shown that any products infringe or practice the '871 Patent.¹³⁹

¹³⁹ In the alternative, if it is later found that the X1 or domestic industry products discussed above infringe or practice the '871 Patent, then the evidence shows that the '871 Patent has had some commercial success, as the products have enjoyed financial success and the corresponding guides embodied the claimed features. *See generally* CX-0004C (Delp WS) and CX-1903C (Dr. Delp opines that various guides incorporate the patented features); CX-1905C (Putnam RWS) at Q/A 194-17 (testifying about various guides and set-top boxes, their sales, and demand for multi-room DVR). However, Rovi's showing is weak, because it has not shown that its success is not due to other factors, such as advertising and marketing or “other economic and commercial factors unrelated to the quality of the patented subject matter.”

(b) Licensing Success

The Federal Circuit specifically requires “affirmative evidence of nexus where the evidence of commercial success presented is a license, because it is often cheaper to take licenses than to defend infringement suits.” *In re Cree*, 818 F.3d at 703 (Fed. Cir. 2016) (quotations omitted). The Federal Circuit explained that

When the specific licenses are not in the record, it is difficult for the court to determine if “the licensing program was successful either because of the merits of the claimed invention or because they were entered into as business decisions to avoid litigation, because of prior business relationships, or for other economic reasons.”

Id. (citing *In re Antor Media Corp.*, 689 F.3d 1282, 1294 (Fed. Cir. 2012)).¹⁴⁰ In general, the existence of a

See In re Huang, 100 F.3d 135, 140 (Fed. Cir. 1996) (rejecting argument where patentee did not explain “that the product was purchased due to the claimed features”); *In re DBC*, 545 F.3d 1373, 1384 (Fed. Cir. 2008). In particular, Rovi has not sufficiently shown that multi-room DVR drove consumer purchasing decisions rather than other factors (such as demand for cable television itself).

¹⁴⁰ *In Antor Media*, 689 F.3d at 1294, the Federal Circuit criticized evidentiary support that is similar to the present investigation:

Antor merely lists the licensees and their respective sales revenue. The licenses themselves are not even part of the record. Antor provides no evidence showing that the licensing program was successful either because of the merits of the claimed invention or because they were entered into as business decisions to avoid litigation, because of prior business relationships, or for other

license alone is insufficient to show that the licensed patent was a commercial success. *See Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1324 (Fed. Cir. 2004) (“Without a showing of nexus, “the mere existence of . . . licenses is insufficient to overcome the conclusion of obviousness” when there is a strong *prima facie* case of obviousness.”); *see also Amazon.com*, 2016 WL 1170773 at *17 (“Mr. Holtzman’s testimony lists patent family licenses and revenue, but does not discuss the merits of the challenged claim as they relate to any particular license for the ’956 patent in the portfolio of licenses. . . . [this] does not establish whether a specific license (or licensing clause, etc.) for the ’956 patent occurred because of the merits of the challenged claim, the merits of unchallenged claims, for other patented inventions, or for other economic reasons related to the whole ’956 patent family.”).

[]¹⁴¹

The evidence does not show, however, that these licenses are based on the merits of the patents as opposed to a business decision to avoid litigation, a prior business relationship, or other economic reason. *See In re Cree*, 818 F.3d at 703; *In re Antor Media*, 689 F.3d at 1294.

economic reasons. The Board was thus correct in holding that the existence of those licenses is, on its own, insufficient to overcome the *prima facie* case of obviousness.

¹⁴¹ It is not readily apparent whether the licenses are in the record or if Dr. Putnam read them. *See generally* CX-1905C (Putnam RWS) at Q/A 75-79.

[] Accordingly, the administrative law judge has determined that Rovi has not shown that licensing of the '871 Patent—apart from the portfolio—has been a success.

(c) *Long-Felt Need*

Rovi argues:

The '871 Patent satisfied a long-felt need for coordination across IPGs in a household. CX-1904C (Williams RWS) at Q/A 98-101; CX-1903C (Delp RWS) at Q/A 298-299; CDX-0205C ('871 Reviews). Persons of ordinary skill in the art at the time of the inventions would have considered the networked whole home DVR solutions too complex, costly, and impractical. CX-1904C (Williams RWS) at Q/A 101.

Rovi Br. at 254.

Long-felt need “is analyzed as of the date of an articulated identified problem and evidence of efforts to solve that problem.” *Texas Instruments Inc. v. U.S. Int’l Trade Comm’n*, 988 F.2d 1165, 1178 (Fed. Cir. 1993).

Rovi’s evidence consists of conclusory expert testimony. *See, e.g.*, CX-1904C (Williams RWS) at Q/A 98-101; CX-1903C (Delp RWS) at Q/A 298-299. Mr. Williams and Dr. Delp did not identify the date when the long-felt need first began (*i.e.*, Mr. Williams and Dr. Delp did not analyze the need “as of the date of an articulated identified problem and evidence of efforts

to solve that problem,” per *Texas Instruments*).¹⁴² *Id.* Further, the exhibit cited, CDX-0205 (reviews for the ’871 Patent), discusses the ’556 Patent, not the ’871 Patent. (The “AnyRoom DVR” mentioned in Q/A 299 is not discussed in CDX-0205.)

Accordingly, the administrative law judge has determined that this testimony is insufficient to find a long-felt need, and that this factor does not support non-obviousness.

(d) Contemporaneous Invention by Others

Comcast argues:

The objective facts showing the obviousness of the Asserted Claims include the contemporaneous conception of the claimed subject matter by others in the same field, including all of the references discussed above. For example, the Akamatsu reference, regardless of whether it is prior art, shows simultaneous creation of a solution. RX-0223. These independent entities developed and reduced to practice similar subject matter in their products and patent applications that were developed before the filing of Rovi’s non-provisional U.S. Patent application.

Resps. Br. at 288.

¹⁴² While Mr. Williams discussed the 1992, 1998, and 1999 timeframes, those discussions were not cited by Rovi, and the discussions relate to the priority dates of the patents, not the dates when the alleged need arose.

The administrative law judge has determined that Comcast's contemporaneous inventions argument provides only negligible support for a finding of obviousness. To begin, many of the references Comcast relies upon were disclosed to the Examiner during prosecution. While Akamatsu is close prior art, it does not weigh significantly in the secondary considerations analysis because the reference is too vague and equivocal with regard to where the second interactive program guide resides, what the second guide does, and how it interacts with the first guide to show that it was a simultaneous invention.

*(e) Weighing the Secondary
Consideration Factors*

On the whole, the administrative law judge has determined that Rovi's secondary considerations arguments and the evidence cited therein is of negligible probative value. The evidence cited by Comcast is also negligible and does not have a perceptible impact on the obviousness calculus.

c) Indefiniteness

Comcast argues:

Claim 12 includes the term "A processor configured to: Receive, . . . ; Receive, . . . ; and generate . . . , wherein the list of scheduled events is accessible for display from any of the first and the second interactive electronic program guides in the household." Although it does not contain the word means, it recites "function without reciting sufficient structure for performing that function." *Williamson*, 792 F.3d at 1349. [The] term

does not identify a well-known structure that would have been well-understood without resort to the specification, and the specification does not provide sufficient structure. Simple recitation of the function performed by the general purpose computer is not an algorithm. *See Triton Tech of Texas, LLC v. Nintendo of Am., Inc.*, 753 F.3d 1375, 1378-79 (Fed. Cir. 2014) (holding that accumulating data by a numerical “integrator means,” as a “conventional microprocessor,” was invalid because “merely using the term ‘numerical integration’ does not disclose an algorithm—*i.e.*, a step-by-step procedure—for performing the claimed function.”). So too with the “processor” element of Claim 12. The parts of the specification that discuss this element do not discuss any code or algorithm. *See, e.g.*, JX-0004 (’871 Patent) at 1:53-65, 7:53-59. Figs. 1A-1C, and 31.

Resps. Br. at 289-90.

The administrative law judge construed the term “processor” and addressed Comcast’s indefiniteness argument in Section VI(D)(2)(b)(7), above. Claim 12 is not indefinite.

E. U.S. Patent No. 8,578,413

1. Overview of the ’413 Patent (JX-0005)

The ’413 Patent, entitled “Interactive television program guide with remote access,” issued on November 5, 2013. The ’413 Patent is a continuation

of the '801 Patent. It claims the benefit of U.S. Provisional Application No. 60/097,527, filed August 21, 1998, and U.S. Provisional Application No. 60/093,292, filed July 17, 1998. The '413 Patent shares “essentially the same specification” as the '263 Patent and the '801 Patent. *See* Resps. Br. at 63; *see also* Rovi Br. at 41 (explaining the patents “stem from a common, parent application filed on July 16, 1999”). The '413 Patent relates to interactive television guide programs that operate on local devices, such as a set-top box, and remote devices, such as a laptop or mobile phone.

2. Claim Construction

a) Level of Ordinary Skill in the Art

The parties address the level of ordinary skill for the '263, '801, and '413 Patents together. *See* Rovi Br. at 42; Resps. Br. at 70.

The administrative law judge already determined that a person having ordinary skill in the relevant art would have a bachelor's degree in computer science, electrical engineering, computer engineering, or a similar discipline and two to four years of experience or familiarity with computer networks, graphical user interfaces, and the associated computer software. *See* Section IV(B)(2)(a).

b) Disputed Claim Term

(1) Records the television program corresponding to the selected television program listing using the local interactive television program guide equipment

The parties dispute the meaning of the phrase “records the television program corresponding to the selected television program listing using the local interactive television program guide equipment,” which only appears in the claims 1 and 10 of the ’413 Patent. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
records using the local interactive television program guide equipment the television program corresponding to the selected television program listing	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 53; Resps. Br. at 79-81.

Rovi’s argument, which is comingled with three other disputed phrases, appears above at Section IV(B)(2)(c)(10). *See* Rovi Br. at 53-54 (Section V(C)(2)(h)). Comcast’s argument, which is comingled with five other disputed phrases, appears above at Section IV(B)(2)(c)(10). *See also* Resps. Br. at 79-81 (Section VIII.B.3.c).

The administrative law judge construes the phrase “records the television program corresponding to the selected television program listing using the local interactive television program guide equipment” to mean “records using the local interactive television program guide equipment the television program corresponding to the selected television program listing.” Comcast has not presented a cogent

argument, with sufficient intrinsic (Comcast does not cite the '413 patent or its prosecution history) or extrinsic support, to warrant construing the phrase otherwise.

The above construction comports with the claim language, neither expands nor narrows the claim language, and is consistent with how one of ordinary skill in the art would read the claims. *See* CX-0002C at Q/A 126, 141.

3. Literal Infringement

a) Claims 1, 3, 5, 9, 10, 14, and 18

Rovi asserts claims 1, 3, 5, 9, 10, 14, and 18 of '413 Patent. Rovi Br. at 60. Dependent claims 3, 5, 9, 14, and 18 follow:

- 3. The system defined in claim 1 wherein the remote access interactive television program guide obtains the user profile over the Internet communications path.
- 5. The system defined in claim 1 wherein the remote access interactive television program guide obtains the user profile in response to a user input.
- 9. The system defined in claim 1 wherein the remote access interactive television program guide obtains program guide data based on the user profile.
- 14. The method defined in claim 10 wherein the remote access interactive television program guide obtains the user profile in response to a user input.

- 18. The method defined in claim 10 wherein the remote access interactive television program guide obtains program guide data based on the user profile.

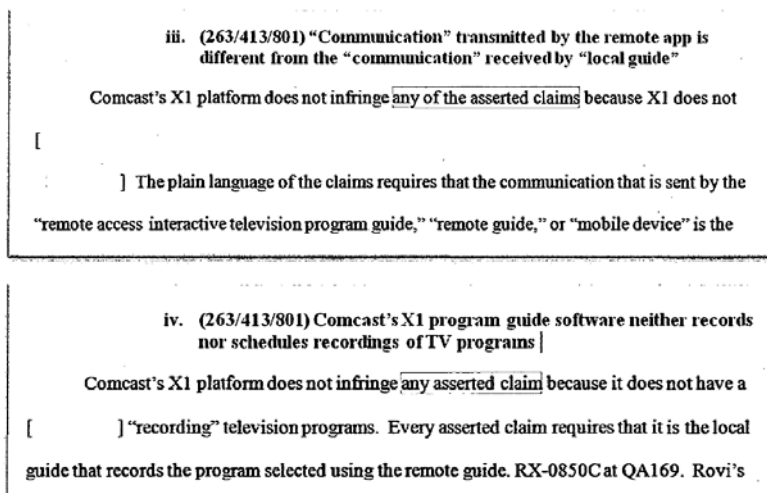
JX-0005 at 40:52-42:34.

Rovi relies upon the same evidence and argument presented for claim 1 of the '263 Patent to argue that claims 1, 3, 5, 9, 10, 14, and 18 are infringed. *See generally* Rovi Br., Section V(E)(1). For instance, the conclusion of Rovi's argument for limitation 1c of the '263 Patent is typical for its allegations that the X1 and Legacy products infringe the '413 patent:

The evidence and arguments made with respect to '263 claim element 1b [*sic*, 1c] also show that the following claim elements are met by the X1 system: '263 claim elements 14c, 17b; **'413 claim elements 1b, 1c, 3, 5, 9, 10b, 10c, 10d, 14, 18;** and '801 claim elements 1a, 5a, 10a, 10c, 10d, 15a, 15c. CDX-0306C (CX-0002C (Shamos WS) at Q/A 216) (demonstrating X1 and Legacy Guide infringement); CX-1634, -1638 (X1 Screenshots for the '413 Patent); CX-1636, 1641 (X1 Screenshots for the '801 Patent); CX-0002C (Shamos WS) at Q/A 250, 259, 267, 269, 275, 278, 281, 288, 290, 293, 295, 297, 301, 314, 324, 330, 332, 342, 346.

Rovi Br. at 76 (emphasis added; Rovi's conclusion for the Legacy products, *see* Rovi Br. at 77, correlates the "evidence and arguments made with respect to '263 claim element 1c" with the same limitations and dependent claims listed for the X1 products).

Similarly, Comcast has not presented any separate, substantive non-infringement arguments for the '413 Patent. *See generally* Resps. Br. at Sections VIII(C)(2)(a), VIII(C)(2)(b) (the sub-headings indicate Comcast's arguments are directed toward the '263, '413, and '801 Patents collectively or the '263 and '413 Patents together). In particular, Comcast's arguments do not distinguish between discrete claims or claim limitations. For example, Comcast identifies the three Remote Access patents in sub-headings and does not identify any claim numbers or alphanumeric claim limitations in its subsequent argument. Two exemplary images follow:



See Resps. Br. at 92-97 (Sections VIII(C)(2)(a)(iii), VIII(C)(2)(a)(iv)) (highlighting added). In reply, Comcast adds:

The entirety of Rovi's infringement analysis addresses only claim 1 of the '263 patent. There is no analysis of any

dependent claim, nor is there any analysis of any claim of the '413 or '801 patents. *See* Compl. PoHB at 62-84. While Respondents agree that all of the independent claims of the '263 and '413 patents are essentially identical and Rovi's approach is reasonable for those five claims, Respondents do not agree this is proper for the remaining claims.

. . . '413 claims 3, 5, 9, 14, and 18 recite limitations related to how the remote guide receives a user profile. *See* JX-0005 ('413 patent) at 40:52-54, 40:58-60, 41:1-3, 42:22-24, and 42:29-31. There is no discussion of these limitations in Rovi's discussion of '263 element 1c. *See* Compl. PoHB at 72-77. Given the complete failure to even discuss these limitations, the Commission should find that Rovi has failed to carry its burden to prove infringement of '263 claim 2, '413 claims 3, 4, 9, 14, and 18, and '801 claims 1, 5, 10, and 15.

Resps. Reply at 27-28 (emphasis in original). The evidence Rovi cites for limitation 1c (for the accused X1 and Legacy products) is sufficient to demonstrate infringement for claims 3, 5, 9, 10, 14, and 18, and besides stating that it disagrees, Comcast has not explained (or cited any evidence demonstrating) how the accused products do not infringe. Thus, Comcast has not rebutted Rovi's showing that claims 3, 5, 9, 10, 14, and 18 are infringed.

Accordingly, the administrative law judge finds that Comcast infringes 1, 3, 5, 9, 10, 14, and 18 of '413

Patent for the same reasons it infringes claims 1, 2, 14, and 17 of the '263 Patent.

a) Comcast's Additional Non-Infringement Arguments

Comcast and Rovi both rely upon the same evidence and arguments presented for the '263 Patent to argue that Comcast's alternative designs do or do not infringe claims 1, 5, 10, and 15 of the '413 Patent. The administrative law judge already determined that Comcast cannot avoid infringement simply because there may be alternative ways to use the accused products, *see* Section IV(B)(c)(1), and that determination also applies here.

4. Indirect Infringement

a) Induced Infringement of the '413 Patent

Neither Rovi nor Comcast presents separate argument, apart from the '263 Patent, as to whether Comcast does or does not induce infringement of claims 1, 3, 5, 9, 10, 14, and 18 of '413 Patent. *See generally* Rovi Br., Section V(E)(4); Resps. Br., Section VIII(C)(3). Accordingly, the administrative law judge finds that Comcast induces infringement of claims 1, 3, 5, 9, 10, 14, and 18 of '413 Patent for the same reasons it induces infringement of claims 1, 2, 14, and 17 of the '263 Patent.

b) Contributory Infringement of the '413 Patent

Neither Rovi nor Comcast, ARRIS, or Technicolor presents separate argument, apart from the '263 Patent, as to whether ARRIS or Technicolor does or does not contribute to the infringement of claims 1, 3,

5, 9, 10, 14, and 18 of '413 Patent. *See generally* Rovi Br., Section V(F); Resps. Br., Section VIII(C)(4). Accordingly, the administrative law judge finds that ARRIS and Technicolor do not contributorily infringe claims 1, 3, 5, 9, 10, 14, and 18 of '413 Patent for the same reasons does not contributorily infringe claims 1, 2, 14, and 17 of the '263 Patent.

5. Domestic Industry - Technical Prong

Rovi does not clearly identify which claims of the '413 Patent are practiced by the domestic industry products. *See generally* Rovi Br., Section V(G). Rather, Rovi explains:

For purposes of brevity, Rovi refers to the '263 Patent claim elements below and indicate relevant claim elements of the '413 and '801 patents wherever the same evidence is applicable in showing whether the claim element has been met. Relevant claim language as to all claims is provided in full at CDX-0307C (CX-0002C (Shamos WS) at Q/A 383-433).

Rovi Br. at 97. For instance, the conclusion of Rovi's argument for the preamble of claim 1 of the '263 Patent is typical for the Rovi (i-Guide, Passport, and TotalGuide xD) and Verizon FiOS domestic industry products:

The evidence and arguments made with respect to '263 claim element 1pre also show that the following claim elements are met by the Rovi systems: '263 claim elements 14pre, 17pre; **'413 claim elements 1pre, 10pre;** and '801 claim elements 1pre, 1a, 5pre, 5a,. [sic] 10pre,

10a, 10c, 15pre, 15a, 15c. CX-0002C (Shamos WS) at Q/A 434-35, 444-45, 452-53, 474-75, 488-89, 490-92, 504-07, 516-19, 522-23, 532-35, 538-39.

Rovi Br. at 98 (emphasis added).

Comcast does not present a separate argument, apart from the '263 Patent, as to whether Rovi does or does not satisfy the technical prong. *See generally* Resps. Br., Section VIII(D) (Comcast even acknowledges the similarities to its non-infringement case: "The asserted claims do not read on the asserted DI systems for many of the same reasons that the claims do not read on Comcast's. RX-0850C (Wigdor RWS) at Q/A 231." Resps. Br. at 114).

Accordingly, the administrative law judge finds that the Rovi and Verizon products practice claims 1, 3, 5, 9, 10, 14, and 18 of '413 Patent for the same reasons those products practice claims 1, 2, 14, and 17 of the '263 Patent.

6. Patent Eligibility and Validity

Comcast does not present any separate arguments, *i.e.*, arguments apart from the '263 Patent, that contend the '413 Patent's asserted claims are ineligible or invalid. *See generally* Resps. Br., Section VIII(E).

The administrative law judge already determined that claims 1, 2, 14, and 17 of the '263 Patent are not ineligible and not invalid. *See* Section IV(B)(7).

Accordingly, the administrative law judge has determined that Comcast has not shown, through clear and convincing evidence, that claims 1, 3, 5, 9, 10, 14, and 18 of '413 Patent are ineligible or invalid.

F. U.S. Patent No. 8,621,512

1. Overview of the '512 Patent (JX-0006)

The '512 Patent, entitled "Interactive television program guide with simultaneous watch and record capabilities," issued on December 31, 2013. The application that would issue as the '512 Patent, Application No. 13/280,215, was filed on October 4, 2011. The '512 Patent claims the benefit of several applications, the earliest of which is Provisional Patent Application No. 60/089,487, which was filed on June 16, 1998. The '512 Patent discloses a television guide that allow users to record a program while simultaneously watching another program.

Comcast has introduced the '556 Patent as addressing "multi-tuner conflict resolution." See Tr. 37.

2. Claim Construction

a) Level of Ordinary Skill in the Art

Rovi argues:

A person of ordinary skill in the art relevant to the '512 Patent would have a bachelor's degree in electrical or computer engineering or computer science, or equivalent experience, and two to four years of experience relating to computer programming and user interfaces. CX-0003C (Balakrishnan WS) at Q/A 185; CX-1920C (Balakrishnan RWS) at Q/A 19-22.

Rovi Br. at 134-35.

Comcast argues:

A POSITA of the '512 patent as of Rovi's proposed date of invention would have a

bachelor's degree in computer science, electrical engineering, computer engineering, or a similar discipline, and at least two to three years of experience or familiarity with electronic program guides, television video signal processing, graphical user interfaces, and associated computer software, or the equivalent experience gained through work in industry or research. *See* RX-0004C (Bederson WS) at Q/A 48.

Resps. Br. at 170.

b) Disputed Claim Terms

(1) Preambles

The preamble of claim 1 is “A method for resolving a conflict when multiple operations are performed using multiple tuners controlled by an interactive television program guide, the method comprising[.]” JX-0006 at 18:35-37. The preamble of claim 13 is “A system for resolving a conflict when multiple operations are performed using multiple tuners controlled by an interactive television program guide, the system comprising!)]” *Id.* at 19:41-43.

The parties disagree on whether the preambles are limiting. This is Rovi's entire opening argument:

The preambles of claims 1 and 13 are not limiting. CX-0003C (Balakrishnan WS) at Q/A 191; *see also, Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997).

Rovi Br. at 135. Dr. Balakrishnan opined:

Q191. Do you have any opinions regarding the preamble of claims 1 and 13?

A191. Yes, I do. In my opinion, when reading the preamble of claims 1 and 13 in light of the claims, the specification, and the file history of the '512 Patent, one of ordinary skill in the art would not have understood the preamble to have been limiting to either claim. I do not believe that the preamble is necessary to the scope of the claim, because the body of the claim is complete without the preamble. In other words, claim 1 could read, "A method comprising: . . ." together with the remainder of the steps of claim 1 and would have been completely understandable to the person of ordinary skill in the art. The same is true for claim 13. It could read, "A system comprising: . . ." and it still would have been understandable to a person of ordinary skill in the art.

CX-0003C (Balakrishnan WS) at Q/A 191.

This is Comcast's entire argument:

The preamble of a patent claim is limiting when "breathes life and meaning into the claim" *In re Wertheim*, 541 F.2d 257 (CCPA 1976). It does just that here. The claims recite an alert that is provided upon "determining neither a first tuner nor a second tuner are available to perform the requested tuning operation." This is the "conflict" condition described

in the preamble, and explains why, when the first tuner and second tuner are occupied, the user must cancel a function to free a tuner. This is disclosed clearly in the specification. JX-0006 at 10:25-47, Figs. 4(b), 4(c). The limitation imposed by the “conflict” condition is consistent with the opinions expressed by Rovi’s own expert, who opined that the first and second tuner are not occupied until the “nth tuner” (i.e, the last tuner) is occupied. Tr. 329:23 - 330:15.

Resps. Br. at 171.

Rovi’s entire reply is:

Respondents contend that the preambles of claims 1 and 13 are limiting. Resps. Br. at 170-71. Respondents, however, failed to address the construction of the preambles in their Pre-Hearing Brief and have waived any argument that the preamble is limiting. Resps. P.H. Br. at 510-47; G.R. 7. And, in any event, the preamble is not limiting for the reasons established in Rovi’s Post-Hearing Brief. Compls. Br. at 135.

Rovi Reply at 46.

Comcast does not address the preambles in its reply. *See generally* Resps. Reply at 50-76 (discussing the ’512 Patent).

The parties have requested the administrative law judge to construe subparts of the preambles (*e.g.*, “resolving a conflict when multiple operations are performed using multiple tuners” and “interactive

television program guide”). The parties do not explain why it is necessary to construe further the entire preambles (the only words not separately construed are “1. A method for . . . [resolving a conflict] . . . controlled by an . . . [IPG] . . . , the method comprising:” and “13. A system for . . . [resolving a conflict] . . . controlled by an [IPG] . . . , the system comprising:”). The administrative law judge has determined it is not necessary to rule on the preambles where the constituent parts are already addressed separately. *Cf. Sulzer Textil, 02 Micro, Biotec Biologische Naturverpackungen*, and *U.S. Surgical Corp.*

(2) *Tuner*

The term “tuner” appears throughout the claims and specification. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
hardware and/or software that obtains the portion of the input signal that is requested by the user	“The term ‘tuner’ is used in its plain and ordinary sense in the ’512 patent to refer to a device that tunes or selects a desired TV channel, <i>i.e.</i> a desired frequency out of an entire frequency band: ‘[t]he unprocessed television signal on line 206 is provided to set-top box 112. The unprocessed television input signal on line 206 is then received by tuner 202 and tuner 204 which process the signal by

Rovi's Proposed Construction	Comcast's Proposed Construction
	decoding it and <i>tuning to desired television channels</i> ' JX-0006 ('512 patent) at 6:19-23 (emphasis added); RX-0847C (Bederson RWS) at Q/A 17."

See Rovi Br. at 135; Resps. Br. at 171.

Rovi argues:

One of ordinary skill in the art would have understood the claim term “tuner” to mean “hardware and/or software that obtains the portion of the input signal that is requested by the user.” CX-0003C (Balakrishnan WS) at Q/A 198-99; 202-05. For example, Figures 2(a) and 2(b) show two “tuners” having, as input, the raw “television input signal” received from the head end, and, as output, “processed signals”—*i.e.*, the portion of the input signal requested by the user—that are sent directly to the television or the VCR for playback or recording. *Id.* at Q/A 203. The '512 Patent specifically states that a digital tuner may include additional components, such as a Q/AM demodulator—a component essential for creating the “processed signal” by extracting information from the received, and selected, raw television signal. JX-

0006 ('512 Patent) at col. 5, lns. 36-58; CX-0003C (Balakrishnan WS) at Q/A 202; RX-0847C (Bederson RWS) at Q/A 7; Balakrishnan Tr. 369.

As shown in the '512 Patent, the two tuners, 202 and 204, "process" the received and selected signal by "decoding it and tuning to desired television signals" which are then output as "processed signals" to television equipment. JX-0006 ('512 Patent) at col. 6, lns. 20-23; CX-0003C (Balakrishnan WS) at Q/A 39. The '512 Patent specification discloses numerous examples of tuners, including, among others, digital tuners, which may contain an analog tuner, a decoder such as an MPEG-2 decoder, a demodulator, such as a quadrature amplitude modulation ("QAM") demodulator, and a demultiplexer such as a MPEG-2 demultiplexer that is used to extract the portion of the television input signal that is desirable to the user and corresponds to a particular television program or channel. JX-0006 ('512 Patent) at col. 5, lns. 44-58; CX-0003C (Balakrishnan WS) at Q/A 40. Thus, as understood from the specification, the "tuner" obtains the user's desired television channel, outputs a *processed* signal for that channel that can be played back on a television or be recorded, and may include other components, such as a QAM demodulator or MPEG-2 demultiplexer

necessary for processing the received signal into a signal viewable on a television.

Respondents contend that “tuner” means “an electronic circuit used to selectively receive RF signals in a desired frequency channel and convert them into audio and video signals.” Respondents’ construction is far too limiting with respect to the term “electronic circuit” and “to selectively receive RF signals in *a* desired frequency channel.” CX-0003C (Balakrishnan WS) at Q/A 206 (emphasis added). Respondents’ construction also seeks to impermissibly limit the claimed “tuner” *only* to a device for selecting a signal; excluding from the scope of the claimed “tuner” (at least in their expert’s non-infringement opinions) the processing of the signal—and the components (Q/AM demodulator and MPEG-2 demultiplexers)—that do the processing. Tuners, as used in the ’512 Patent, are not limited solely to an electronic circuit for receiving only in “a” (singular) “desired frequency channel.” As relevant to the infringement dispute, Respondents contend—in direct contradiction to the teachings of the ’512 Patent—that the Q/AM demodulators in the accused products cannot be part of the “tuner” because the “tuner” and “Q/AM demodulators” are separate electronic circuits. *But see* JX-0006 (’512 Patent) at col. 5, lns. 44-58 (discussing the “digital

tuner” as including a “Q/AM demodulator” among other components necessary for “processing” the received and selected raw television signal into a signal viewable on television).

Rovi Br. at 135-137.

Comcast argues:

The term “tuner” is used in its plain and ordinary sense in the ’512 Patent to refer to a device that tunes or selects a desired TV channel, *i.e.* a desired frequency out of an entire frequency band: “[t]he unprocessed television signal on line 206 is provided to set-top box 112. The unprocessed television input signal on line 206 is then received by tuner 202 and tuner 204 which process the signal by decoding it and ***tuning to desired television channels.***” JX-0006 (’512 Patent) at 6:19-23 (emphasis added); RX-0847C (Bederson RWS) at Q/A 17. But this meaning cannot encompass all hardware or software “that *obtains* the portion of the input signal that is requested by a subscriber” as Rovi contends. RX-0847C at Q/A 6. Rather, the tuner performs the particular function of selecting a particular frequency containing the desired channel. RX-0847C at Q/A 14. The STB contains additional equipment, beyond the tuner, to process the selected channel. *See* JX-0006 at 5:44-58; RX-0847C (Bederson RWS) at Q/A 7. Rovi’s proposal sweeps in

all of this additional equipment that is used for extracting content for viewing (*i.e.* anything that “obtains the portion of the input signal”), rather than equipment that tunes to the relevant channel. RX-0847C at Q/A 6, 14. Video processing software, as well as numerous pieces of hardware (*e.g.*, antennas, processors, wiring) would all be swept in to Rovi’s construction.

In contrast, Respondents’ construction is fully supported by the specification and the claims. The very disclosure that Rovi relies upon makes clear that the tuner must select a particular frequency, even though the extended tuner architecture may include additional components to process the selected frequency, separate from the tuner and that components such as the demodulator (*i.e.* components other than the “tuner”) are included and necessary to extract/process the desired signal, but are not used to select the specific frequency required. *See* RX-0847C at Q/A 7; JX-0006 at 5:44-58 (cited by Dr. Balakrishnan in CX-0003C at Q/A 202).

“Tuner” is also defined, in the dictionary definition used by Rovi’s own expert (*see* CX-0003C (Balakrishnan WS) at Q/A 201), as a “*circuit or device that can be set to select one signal from a number of signals in a frequency band.*” RDX-1203 (RX-0307 (The Illustrated Dictionary of Electronics, 7th Ed.) at 683); RX-0847C at

Q/A 11. But despite relying on this definition, Rovi still proposes a construction that eliminates the concept of (1) a circuit, or (2) selecting a signal from the incoming range of frequencies. In contrast, additional components, other than the “tuner,” such as the demodulator (such as the Q/AM demodulator discussed in JX-0006 (’512 Patent) at 5:44-58) have the role of recovering information from the selected frequency. *See* RX-0846C (Garcia WS) at Q/A 16-18. Rovi’s proposal of “obtains the portion of the input signal,” appears aimed at capturing these components, which are not a “tuner.” For example, the dictionary Dr. Balakrishnan cites also defines a demodulator as “a circuit that recovers the information from a modulated analog or digital signal;” Dr. Balakrishnan agreed to the same definition during deposition. RX-0307 (The Illustrated Dictionary of Electronics, 7th Ed.) at 177; RX-0818 (Balakrishnan Dep, Ex. 13); RX-0847C at Q/A 13. He also confirmed that the tuner and Q/AM demodulator are fundamentally different components that perform different steps. RX-0847C at Q/A 14. This raises greater questions about the breadth of Rovi’s proposal.

Rovi’s construction also extends to “software” tuners. But there is no disclosure, either in the intrinsic or extrinsic record, of any “software” tuners,

and it is altogether unclear what such a “software” tuner would be. CX-0003C (Balakrishnan WS) at Q/A 204-205 (relying on his belief the patent does not foreclose software tuners, rather than any actual disclosure). In fact, Rovi’s expert testified that software that captures frames of video (*e.g.*, performs a freeze frame), would be swept into Rovi’s construction of “tuner,” because it “obtain[s] the portion of the input signal that is requested by the user.” RX-0847C (Bederson RWS) at Q/A 15. This breadth is untenable. And of course, it ignores the very dictionaries that Rovi cites, all of which disclose a “tuner” at the time of the invention as hardware (*e.g.*, a circuit). RX-0847C (Bederson RWS) at Q/All; RX-0307 (The Illustrated Dictionary of Electronics, 7th Ed.) at 683; RX-0862 (Mod. Dictionary of Elecs (1999)) at 807 (defining tuner as “[a] radio or TV receiving circuit); RDX-1207 (RX-0817 (DTV Handbook) at 415-16 (2001 textbook describing a digital tuner as an electronic circuit); RX-0847C at Q/A 17 (Rovi’s expert agreeing that the DTV handbook was a text a POSITA might reference to understand the term “tuner” at the time of invention, as shown in RDX-1208).

...

Resps. Br. at 171-74 (Comcast’s final paragraph about a “tuning operation” is omitted).

Rovi replies:

A “tuner” is “hardware and/or software that obtains the portion of the input signal that is requested by the user.” Compls. Br. at 135-37. Respondents contend that Rovi’s construction is improper because, under Rovi’s proposed construction, the tuner does more than “perform[] the particular function of selecting a particular frequency containing the desired channel.” Resps. Br. at 171 (ignoring that under Respondents’ proposed “tuner” construction the “tuner” also does more than “select a particular frequency”—it also “converts” the selected signals “into audio and video signals.”). Specifically, Respondents’ criticize Rovi’s use of the word “obtaining” in its proposed construction, because use of this word improperly “sweeps in . . . additional equipment that is used for extracting content for viewing (*i.e.*, anything that ‘obtains the portion of the input signal’), rather than the equipment that tunes to the relevant channel.” *Id.*

As a threshold, Rovi does not place any particular emphasis on the word “obtains” in its proposed construction of “tuner.” Rovi would take no issue with replacing the word “obtains” in its proposed construction with the use of the word “select” (as in Respondents’ proposed construction) or the use of the word “extract” (as used in the ’512 Patent

specification, JX-0006 ('512 Patent) at col. 5, ln. 56). *See generally* Compls. Br. at 136.

The crux of the dispute related to this term comes down to its application in the infringement analysis and whether the “tuner”—in addition to including components necessary to “obtain” (or “select” or “extract”) a portion of the input signal—may also include components (like “Q/AM demodulators”) necessary to “process” the selected signal into the portion of the signal “requested by the user.” Compls. Br. at 135-37 (Rovi setting forth evidence showing that the “tuner” in the '512 Patent may do more than signal selection—it may also process the signal into an output viewable by the user); Resps. Br. at 171 (criticizing Rovi’s construction for “sweep[ing] in . . . additional equipment that is used for extracting content [from the selected signal] for viewing . . .”). But, and contrary to Respondents’ criticisms, the specification makes clear that in addition to selecting a portion of the input signal, the “tuner” may also “process” the selected signal and may therefore contain the “additional components” necessary to perform this “processing.” Compls. Br. at 135-37 (explaining that the disclosed embodiments in Figs. 2(a) and 2(b) show a “processed” signal output by the “tuners” and that the specification (JX-0006 ('512 Patent) at col. 5, lns. 44-58)

discloses an embodiment of a “digital tuner” including the components necessary for this “processing” such as “an MPEG-2 decoder,” a “quadrature amplitude modulation (‘Q/AM’) demodulator,” and an “MPEG-2 demultiplexer.”).

That the “tuner” may additionally “process” the obtained (or selected or extracted) signal, and may therefore contain the additional components (like “Q/AM demodulators”) necessary for that processing, is recognized by both parties’ constructions of this term. Rovi’s construction requires that the “tuner” “obtain” (or “select” or “extract”) the “portion of the input signal that is requested by the user.” *See* Compl. Br. at 135 (Rovi explaining that the “portion of the input signal requested by the user” corresponds to what the user has “requested” to view on his or her television—*i.e.* it is the selected and processed signal). Similarly, Respondents’ construction requires that the “tuner” “selectively receive RF signals in a desired frequency channel *and* convert them into audio and video signals.” *Id.* (emphasis added). Without additional components like the “Q/AM demodulator,” there is no “conversion” of the “selectively received RF signals. . . . into audio and video signals” as Respondents’ construction requires. *Id.* at 159 (testimony by Comcast engineer

Albert Garcia confirming that without a Q/AM demodulator, there is no “conversion” of the selected signal into audio and video signals); *id.* at 135-37.

Thus, embodiments where the claimed “tuner” additionally processes the selected portion of the input signal—and the components that do that additional processing (such as a Q/AM demodulator)—*should not* be excluded from the proper construction of this term (or the application of this term to the infringement dispute). Compls. Br. at 136-37.

Rovi Reply at 47-48.

Comcast replies:

Rovi declines to rely upon the dictionary definition that its own expert, Dr. Balakrishnan, identifies as the plain and ordinary meaning of “tuner”: “circuit or device that can be set to select one signal from a number of signals in a frequency band.” CX-0003C (Balakrishnan WS) at Q/A 201-202. Respondents’ construction however, is consistent with this dictionary definition, and the ’512 disclosure, and makes clear the concept that a tuner selects a single frequency out of many. RX-0847C (Bederson RWS) at Q/A 11, 16-17.

Rovi’s criticism of Respondents’ construction, based on discussion regarding Q/AM demodulators and

“processing a signal,” is misguided. The sole point of Respondents’ discussion on this issue is that a Q/AM demodulator “by itself cannot be a ‘tuner.’” *Id.* at Q/A 7-10, 13-14. This would eliminate the central role of a tuner, as described in Dr. Balakrishnan’s own cited dictionary definition is “selecting a signal” (*i.e.*, RF frequency). *Id.* at Q/A 14; *see also* JX-0006 (’512 Patent) at 5:44-58; 6:19-23. And Rovi never addresses the overbreadth of its construction which can encompass *anything* that *obtains a portion* of the desired signal; this could entail equipment before the tuner, such as an antenna, and equipment after the tuner, such as frame capture software. RX-0847C at Q/A 6, 15.

Rovi’s argument that Respondents’ construction excludes “processing,” is also incorrect. Respondents’ construction recites “convert[ing] the [selected frequency] into audio and video signals,” which is a type of “processing.” And further, Rovi’s argument that Respondents’ construction excludes “processing” is inconsistent with the opinion of Rovi’s own expert, who argues that Respondents’ construction requires processing to create audio/video signals. CX-0003C at Q/A 347 (“Each of the four boxes, however, would not meet Comcast’s construction for tuner, because Comcast’s construction further requires that the tuner convert the RF signal . . .”).

Rovi's arguments are mere distractors, and fail to address the fundamental shortcoming of its proposal—it eliminates “selecting of a frequency” which is the core function of a “tuner.” In fact, under Rovi's construction, a component that performs *only* the processing (*e.g.*, extraction of a signal, such as performed by a Q/AM demodulator) would constitute a “tuner.” *Id.* RX-0847C at Q/A 8-10, 14-17. This simply cannot be correct, as no POSITA would understand a Q/AM demodulator to be a “tuner” in any sense of the term. *See* RX-0847C at Q/A 10, 14.

Resps. Reply at 50-51.

The administrative law judge construes “tuner” to mean “an electronic circuit used to selectively receive a desired frequency out of an entire frequency band.” *See* RX-0847C (Bederson RWS) at Q/A 5; RDX-1203 (RX-0307 (The Illustrated Dictionary of Electronics, 7th Ed.) at 683); RX-0862, Mod. Diet, of Elecs. (1999) at 807; RX-0817 (DTV Handbook, The Revolution in Digital Video).

Rovi's construction is unduly broad, insofar as it replaces a known, discrete, physical component with a broad conception of the term.¹⁴³ For example, Rovi's

¹⁴³ Although Rovi's construction is predominately functional, that alone is not necessarily improper. *See Funai Elec. Co., Ltd. v. Daewoo Electronics. Corp.*, 616 F.3d 1357, 1366 (Fed. Cir.2010) (“The use of . . . functional language to construe and explain a claim term is not improper. A description of what a component does may add clarity and understanding to the meaning and scope of the claim.”). However, construing the claim as Rovi

construction offers that a tuner is essentially “[anything] that obtains the portion of the input signal that is requested by the user.”¹⁴⁴ This construction would also categorize unrelated components, such as an antenna, as a tuner. Rovi’s construction thus impermissibly expands the meaning that one of skill in the art would have attributed to a tuner at the time of the invention, to include software tuners. *See* RX-0847C (Bederson RWS) at Q/A 17-17.

Comcast’s construction comports with the specification’s description of the tuner: “[t]he unprocessed television signal on line 206 is provided to set-top box 112. The unprocessed television input signal on line 206 is then received by tuner 202 and

suggests would broaden the term in a manner that undermines the public notice function. *See Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581 (Fed. Cir. 1996) (“Where there is an equal choice between a broader and a narrower meaning of a claim, and there is an enabling disclosure that indicates that the applicant is at least entitled to a claim having the narrower meaning, we consider the notice function of the claim to be best served by adopting the narrower meaning.”); *see also White v. Dunbar*, 119 U.S. 47, 51-52 (1886) (“Some persons seem to suppose that a claim in a patent is like a nose of wax, which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express. The context may, undoubtedly, be resorted to, and often is resorted to, for the purpose of better understanding the meaning of the claim; but not for the purpose of changing it, and making it different from what it is. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.”).

¹⁴⁴ With regard to extrinsic evidence, Rovi’s construction is only supported by expert testimony.

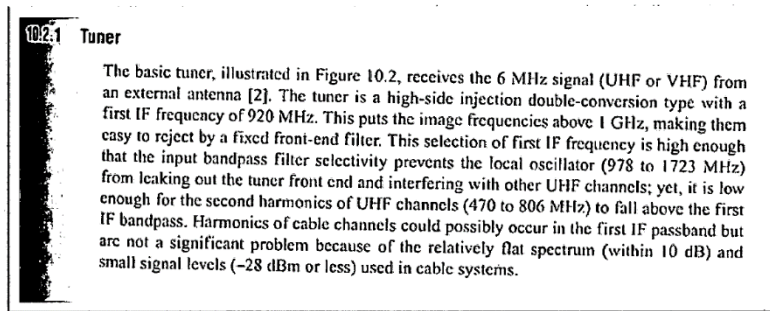
tuner 204 which process the signal by decoding it and tuning to desired television channels.” JX-0006 (’512 Patent) at 6:19-23 (emphasis added); RX-0847C (Bederson RWS) at Q/A 17 (Dr. Bederson explains that “‘Tuner’ is used in its plain and ordinary sense in the ’512 patent, to refer to a device that tunes to a desired frequency (*i.e.*, that could be carrying a desired television program).”).

Further, the extrinsic evidence Rovi and Comcast cite indicate that a tuner is a circuit:

- “Tuner” is also defined, in the dictionary definition used by Rovi’s own expert (*see* CX-0003C (Balakrishnan WS) at Q/A 201), as a “*circuit or device that can be set to select one signal from a number of signals in a frequency bandy* RDX-1203 (RX-0307 (The Illustrated Dictionary of Electronics, 7th Ed.) at 683); RX-0847C (Bederson RWS) at Q/A 11.
- RX-0862, Mod. Diet, of Elecs. (1999) at 807 (emphasis added): “Tuner: in the broad sense, a device for tuning. Specifically, in radio-receiver practice: 1. A packaged unit capable of producing only the first portion of the functions of a receiver and delivering the rf, IF, or demodulated information to some other equipment. 2. That portion of a receiver that contains the circuit that are tuned to a resonance at the received-signal frequency and those which are tuned to the local-oscillator frequency. 3. **A radio or TV receiving circuit;** a high-fidelity component containing such circuits.”
- *See also* RX-0817 (DTV Handbook, The Revolution in Digital Video), which Dr.

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Balakrishnan agreed that was a text a person of ordinary skill in the art might reference to understand the term “tuner” at the time of invention. The “tuner” description from RX-0817 is reproduced below:



(3) Multiple tuners

The term “multiple tuners” appears in claims 1 and 13 and in the specification. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
“multiple tuners” has its plain and ordinary meaning, where the plain and ordinary meaning is “more than one tuner.”	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 137; Resps. Br. at 182.

Rovi’s entire argument for this term follows:

One of ordinary skill would have understood the term “multiple tuners” to have its plain and ordinary meaning of “more than one tuner.” CX-0003C (Balakrishnan WS) at Q/A 207. The

specification is consistent with this meaning. *Id.*

Respondents contend that “multiple tuners” does not need to be construed; however, should construction be deemed necessary, they contend that the term should be construed as—“at least two different tuners for selecting RF signals in different frequency channels.” Respondents’ construction is redundant and it unnecessarily and improperly adds the word “different”—there is no requirement that “multiple tuners” be “different” electronic circuits that each receive signals in “different frequency channels.” CX-0003C (Balakrishnan WS) at Q/A 207. *See Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1055 (Fed. Cir. 2009) (affirming Commission holding that ALJ’s claim construction that required a second and third circuit “be entirely distinct without common circuit elements” was too narrow, because the second and third circuits could contain overlapping components). Contrary to this authority, and as applied by Respondents’ expert in the infringement dispute, Respondents contend that the identified “tuners” must be entirely distinct electronic circuits and that no “tuner” can share any circuit or component with any other “tuner.”

Rovi Br. at 137-38.

This is Comcast’s entire argument:

During prosecution of the '952 application, which is in the same family as the '512 Patent, the inventors distinguished their invention from the prior art by explaining the difference between the multiple tuners of their invention, and a single tuner used in cited prior art. *See* RX-0360.483 (U.S. Patent Application No. 11/147,952) ("the '952 Application") (arguing past rejection based on Banker, stating "In Banker, 'multiple services provided on the physical channel may be accessed using only a single tuner . . . Banker never discusses providing multiple services using multiple tuners."); *see also* RX-0847C (Bederson RWS) at Q/A 42-45.

The applicant also acknowledged that multiple services - such as video and text - could be obtained using a single tuner, and that this would fall outside the scope of their invention. *Id.* The invention required that the multiple programs (services) be provided using multiple tuners.

And while the parties' constructions may not seem far apart, Rovi somehow reads their construction, of "more than one tuner" ("multiple tuners") and "a tuner other than the 'first tuner" ("second tuner") to encompass anything that outputs multiple programs. This is an impermissible attempt to recapture claim scope in an attempt to read the asserted claims on the accused products which,

like Banker, contain a single tuner to provide multiple services. *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1379 (Fed. Cir. 2008) (Patentee cannot “recapture claim scope disavowed during prosecution to prove infringement.”)

Resps. Br. at 182.

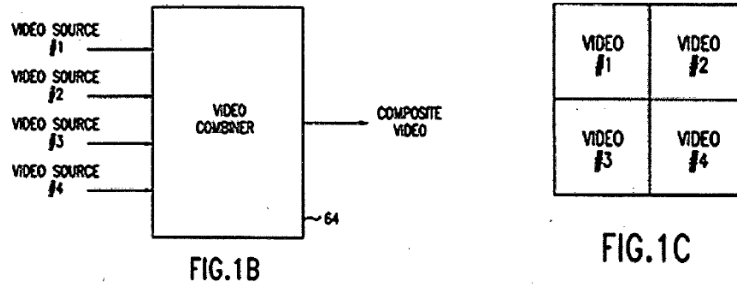
Rovi replies:

Having construed the term “tuner,” there should be no real dispute between the parties regarding the meaning of the claim term “multiple tuners.” Compls. Br. at 137 (explaining that under Rovi’s construction “‘multiple tuners’ has its plain and ordinary meaning . . . [of] ‘more than one tuner’” and that Respondents’ construction is, in relevant part, “at least two different tuners.”). While the parties’ constructions are facially similar, Respondents apply these constructions in the infringement context to require that the “multiple tuners” comprise wholly different, and entirely separate, tuner circuits—such that no one “tuner” can share any components or circuits with any other “tuner.” Resps. Br. at 182. Thus, while not expressly stated within their proposed construction for this term—Respondents’ application of these claim terms in the infringement context is tantamount to adding a requirement to both constructions that “multiple tuners” requires “at least two wholly different

tuners where those at least two wholly different tuner circuits do not overlap at all and do not share any components.” *Id.* Any such addition to either parties’ proposed construction (or application as such in the infringement context) is inconsistent with how the term “multiple tuner” is used in the ’512 Patent as well as binding Federal Circuit case law. Compls. Br. at 152-160 (explaining why the Accused Products have “multiple tuners.”); *see also id.* at 137 (citing the Federal Circuit’s *Linear Technologies* case, and explaining that the Federal Circuit reversed a finding that required that the claimed “second circuit” and “third circuit” be entirely separate and non-overlapping circuits to find infringement, just as Respondents’ incorrectly argue here), 159 (same)).

Moreover, and in support of their attempt to exclude the X1 Accused Products from infringement, Respondents point to a statement made by the applicants in the ’952 application that they assert shows that Rovi has “disclaimed” infringement by circuits— like the Broadcom RF Front End SoCs in the Accused Products. Resps. Br. at 182. In support of their “disclaimer” assertion, Respondents mischaracterize the patentees’ statements during the prosecution of the ’952 application regarding the Banker reference. *Id.*

As the patentees correctly explained during the prosecution of the '952 application: "Banker focuses on a system that combines video signals into a composite video signal and creates virtual channels, so that *only a single tuner is necessary*." RX-0360 (App. No. 11/147,952) at 483 (emphasis in original). The single tuner in Banker does not output multiple separate television channels (or multiple separate streams of "converted audio and video signals"), as Respondents contend. Resps. Br. at 182. Instead, and entirely unlike the claims of the '512 Patent (and entirely unlike the Broadcom RF Front End SoC contained in each of the X1 Accused Products) the *single* tuner in Banker outputs a *single* video channel that is a composite of four channels. RX-0150 (Banker) at col. 15, ln. 41 - col. 16, ln. 12; RX-0360 (App. No. 11/147,952) at 483. In Banker there is only *one tuner* (not multiple tuners) and that one tuner outputs only one channel that is a composite of four different channels:



RX-0150 (Banker) at 3 (Figs 1(B) and 1(C); see also col. 8, ln. 36 - col. 9, ln. 12). Thus, the patentees' statements regarding Banker in the prosecution of the '952 application are not "clear and unambiguous" disavowals of claim scope and do not prevent a claim construction broad enough to encompass the Broadcom chips in the X1 Accused Products. Compls. Br. at 152-60; *Inline Plastics Corp. v. EasyPak, LLC*, 799 F.3d 1364, 1369 (Fed. Cir. 2015).

Rovi Reply at 49-51 (footnote omitted).

Comcast replies:

Rovi misrepresents *Linear Tech. Corp. v. ITC* to argue that it is improper to construe "multiple tuners" as consisting of "different" circuits. *Linear Tech.* does not stand for the broad proposition for which Rovi offers it; it has distinct facts and its holding is inapplicable to this Investigation.

In *Linear Tech*, the asserted claim recited a “second circuit” and “third circuit” that each had different functions. *Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1055 (Fed. Cir. 2009). The asserted patent in *Linear Tech*, “expressly disclose[d] that the ‘second circuit’ and ‘third circuit’ can share common components.” *Id.* at 1055. And this was uncontested. Rather, the proposal of “different” circuits was intended to advocate that “the distinct component[s] [of the second circuit and third circuit] must aid in the function of the [respective] claims circuits.” *Id.* at 1055-56. But the Federal Circuit found this distinction unnecessary, because the claim language already required the components of the second circuit and third circuit aid in performing each circuit’s respective function. *Id.* In contrast, Rovi’s ’512 Patent recites a “first tuner” and “second tuner,” wherein “both [tuners are] capable of performing the tuning operation.” Unlike *Linear Tech.*, the first/second tuner of the ’512 Patent do not recite different functions that may share common components, but are *each* explicitly required to be able to perform the same function, and the specification of the ’512 consistently teaches the use of two *distinct* tuners. See, e.g., JX-0006 (’512 Patent) at Fig. 2b (annotated to show the two distinct tuners):

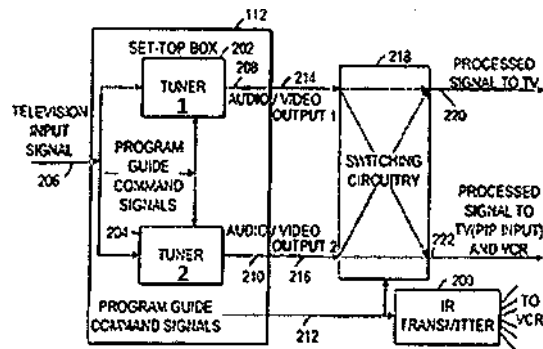


FIG. 2(b)

In addition, the Federal Circuit in *Linear Tech.* made clear that the “second circuit” and “third circuit” of the asserted patent should be accorded their full scope due to the absence of any limiting disclosure or prosecution history. See *Linear Tech.*, 566 F.3d at 1055. In contrast, the applicants for Rovi’s ’512 Patent disavowed claim scope during prosecution when arguing past the Banker reference. In particular, the ’512 applicants distinguished Banker because it *used a single tuner* to output multiple channels *rather than multiple tuners*. See RX-0847C (Bederson RWS) at Q/A 43-45; RX-0360.0483 (’952 file history) (“In Banker, ‘multiple services provided on the physical channel may be accessed using only a single tuner.’ . . . Banker never discusses providing multiple services using multiple tuners.”). Allowing each of the multiple tuners (*e.g.*, the first tuner and second tuner) to share

even the components responsible for tuning, as Rovi contends, would render the limitation, and the applicants' statements during prosecution, meaningless. And it would allow Rovi to recapture claim scope that the inventors clearly ceded when arguing past Banker. Further, Rovi's expert never addressed either the Banker reference or the applicant's remarks to argue past Banker, and, as such, Dr. Bederson's opinions regarding Banker, and the limitations it must impose on the claims of the '512 Patent, stand un rebutted.

Resps. Reply at 52-53.

The administrative law judge construes "multiple tuners" to mean "more than one tuner." The patent uses the word "multiple" in a plain and ordinary manner, and Rovi's proposed construction comports with the claim language, and does not expand or narrow the claim language. The administrative law judge already construed "tuner" to mean "an electronic circuit used to selectively receive a desired frequency out of an entire frequency band."

(4) A second tuner

The term "second tuner" appears principally in the claims and occasionally in the specification. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
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“a second tuner” has its plain and ordinary meaning, where the plain and ordinary meaning is “a tuner other than the ‘first tuner.’”	Comcast does not clearly present a construction in its post-hearing brief.
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See Rovi Br. at 138; Resps. Br. at 182.

Rovi’s entire argument for this term follows:

One of ordinary skill in the art would have understood that the term “a second tuner” has its plain and ordinary meaning of “a tuner other than the ‘first tuner.’” CX-0003C (Balakrishnan WS) at Q/A 208. The ’512 Patent specification refers to the “second or ‘other’ tuner.” JX-0006 (’512 Patent) at col. 10, lns. 28-34, col. 10, lns. 49-54.

Rovi and Respondents agree that the meaning of “second tuner” is **not** limited to any particular tuner, such as, for example, the “last allocated” tuner (a concept Respondents introduce in their proposed construction of “cancel the function of the second tuner” discussed below). CX-0003C (Balakrishnan WS) at Q/A 208. Both sides agree that the “second tuner” is simply another or a “different” tuner, without any further limitations. Both side’s constructions for “a second tuner” are therefore consistent with the rule that “[t]he use of the terms

‘first’ and ‘second’ is a common patent-law convention to distinguish between repeated instances of an element or limitation.” *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003). Thus, in the context of the claims of the ’512 Patent, the use of the terms “first tuner” and “second tuner” is equivalent to a reference to “tuner A” and “tuner B,” and does not impose any serial or temporal limitation onto the claims - something the parties appear to agree to as to, the term “a second tuner” (but dispute as to the “cancel a function of the second tuner” term discussed below).

Rovi Br. at 138.

Comcast presents its argument for this term along with the “multiple tuners” term. *See* Resps. Br. at 182.

Rovi’s entire reply is:

Respondents group their arguments regarding the construction of “a second tuner” together with their arguments for “multiple tuners.” Resps. Br. at 182. Nonetheless, and importantly (because it relates to the construction of “cancel a function of *the* second tuner” discussed below), Respondents’ ignore the fact that both sides agree that the “a second tuner” is simply another or a “different” tuner—without any further qualification or limitation. *See id.*

Rovi Reply at 51.

Comcast presents its reply for this term along with the “multiple tuners” term. *See* Resps. Reply at 52-53.

The administrative law judge construes “second tuner” to mean “a tuner other than the first tuner.” The administrative law judge construed “tuner” to mean “an electronic circuit used to selectively receive a desired frequency out of an entire frequency band.” The remaining dispute thus focuses on the word “second.” The patent uses the word in a plain and ordinary manner, and Rovi’s proposed construction comports with this usage. *See also Linear Tech. Corp. v. Int’l Trade Comm’n*, 566 F.3d 1049, 1055 (Fed. Cir. 2009) (“We agree with the Commission’s construction of ‘second circuit’ and ‘third circuit,’ defining the terms broadly to not require entirely separate and distinct circuits. Indeed, there is nothing in the claim language or specification that supports narrowly construing the terms to require a specific structural requirement or entirely distinct ‘second’ and ‘third’ circuits.”); *3M Innovative Properties Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (“The use of the terms ‘first’ and ‘second’ is a common patent-law convention to distinguish between repeated instances of an element or limitation. . . . In the context of claim 1, the use of the terms ‘first. . . pattern’ and ‘second . . . pattern’ is equivalent to a reference to ‘pattern A’ and ‘pattern B,’ and should not in and of itself impose a serial or temporal limitation onto claim 1.”).

(5) *Cancel the function of the second tuner
to permit the second tuner to perform
the requested tuning operation*

The phrases “cancel the function” and “cancel a function” only appear in the claims. The full text of the

disputed phrase only appears in claim 11. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
Stop a function utilizing a signal tuned to by the second tuner in order to permit the requested function utilizing a signal tuned to by the second tuner to be performed.	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 142; Resps. Br. at 174-78.

Rovi argues:

One of ordinary skill in the art would have understood the phrase “cancel the function of the second tuner to permit the second tuner to perform the requested tuning operation” to mean “stop a function utilizing a signal tuned to by the second tuner in order to permit the requested function utilizing a signal tuned to by the second tuner to be performed.” CX-0003C (Balakrishnan WS) at Q/A 228-229.

Respondents contend that the phrase “cancel the function of the second tuner to permit the second tuner to perform the requested tuning operation” should be construed as “terminate a function being performed by the *last allocated tuner*”

so it can perform the requested tuning operation.” (emphasis added). The parties’ primary dispute involves whether “second tuner,” in this phrase only, is limited to the “last allocated tuner” (as in Respondents’ proposed construction). As discussed above in Section VI(C)(2)(d), the parties agreed that “second tuner” refers to a tuner that is not the first tuner, without any other limitations with respect to time or sequence. “A word or phrase *used consistently* throughout a claim should be *interpreted consistently*.” *Epcon Gas Sys., Inc. v. Bauer Compressors, Inc.*, 279 F.3d 1022, 1031 (Fed. Cir. 2002) (emphasis in original) (quoting *Phonometrics, Inc. v. Northern Telecom Inc.*, 133 F.3d 1459, 1465 (Fed. Cir. 1998)).

In addition to being inconsistent with Respondents’ construction of “second tuner,” Respondents improperly place a temporal limitation on the second tuner that does not exist in the intrinsic evidence. Respondents appear to be relying on the term “second” to connote sequence or time: “***last*** allocated,” which violates the rule that “[t]he use of the terms ‘first’ and ‘second’ is a common patent-law convention to distinguish between repeated instances of an element or limitation.” *3M Innovative Props.*, 350 F.3d at 1371.

Further, there is no support in the intrinsic record for requiring that the

second tuner be the “last allocated” tuner. The claims refer to a “first tuner” and a “second tuner,” *i.e.*, two instances of a tuner, not to a “last allocated” tuner; no other claim term imposes any time or sequence limitation on the “first” and “second” tuners. CX-0003C (Balakrishnan WS) at Q/A 230; Balakrishnan Tr. 370. The term “first” does not mean “first in time” or “first allocated” and the term “second” does not mean “second, in time” or “second allocated” or even “last allocated.” *Id.* Said differently, the claim could just as easily have said “tuner A” and “tuner B” and meant the same thing. *Id.*, *see also* 3M Innovative Props., 350 F.3d at 1371. Indeed, and consistent with the intrinsic record, the “second tuner” can be utilized first in time to record or view television programming and the “first tuner” can be utilized second in time.

The specification likewise does not support limiting the “second tuner” to be the “last allocated tuner.” Respondents rely on Figure 3(b) as their sole support for their read-in “last allocated” addition. RX-0847C (Bederson RWS) at Q/A 26. However, Figure 3(b) is not the sole embodiment of the invention; it is nothing more than an example or illustration, as it is referred to in JX-0006 (’512 Patent) at col. 2, lns. 49-53, and it is even further limited to only the configuration of Figure 2(a), which is

itself merely an example. JX-0006 ('512 Patent) at col. 2, lns. 34-38; CX-0003C (Balakrishnan WS) at Q/A 230. The mere fact that in *one example* in the specification the “second tuner” is utilized second in time as opposed to first in time does not, as a matter of law, mandate that the claims be limited in all instances to utilizing the tuners in this sequence. *Phillips*, 415 F.3d at 1320. Figure 3(b) therefore is not limiting at all, but even if it were, Respondents cannot read-in limitations from an exemplary embodiment that do not appear in the '512 Patent claims. *Id.* Nowhere in the specification or elsewhere in the intrinsic evidence is there any disclaimer or disavowal that would require that the “second tuner” be limited to the “last allocated” tuner. CX-0003C (Balakrishnan WS) at Q/A 230.

Rovi Br. at 142-44 (footnote omitted).

Comcast presents arguments for the phrases “cancel a function of the second tuner to permit the second tuner to perform the requested tuning operation” / “cancel a function” / “function of the second tuner” together:

There is a substantial difference in the parties' constructions. Rovi treats “first tuner” and “second tuner” as interchangeable, and essentially states that as long as the function of any tuner is offered for cancelation, that tuner can be the “second tuner.” RX-0847C

(Bederson RWS) at Q/A 22 (discussing Dr. Balakrishnan's deposition testimony). Respondents' construction treats the "second tuner" as the "last allocated tuner," which is the nth tuner set in a n tuner system. *Id.* at Q/A 19-21. Even Rovi's expert admits that a conflict arises when the nth tuner becomes occupied. Tr. 329:23-330:15; RX-0847C at Q/A 26. Respondents' construction comports with this most fundamental purpose of the invention, and with the intrinsic record. In contrast, Rovi's litigation inspired construction lacks any support in the intrinsic record, and has the effect of doubling the scope of the asserted claims. And it would have the effect of leaving POSITA's without any clear indication of whether they are practicing the claim. RX-0847C at Q/A 22 - 24.

The '512 Patent discloses a two tuner system, as displayed in Fig. 2(b), and discussed in the flow chart of Fig. 3(b). The first tuner may be occupied by displaying or recording a television program, such as in the box with the text "user has selected a program to view on television and first non-busy tuner is used." RX-0847C at Q/A 26; RDX-1237 (JX-0006 at Fig. 3(b) (annotated); JX-0006 ('512 Patent) at 8:17-32. Subsequently, the "other tuner," which is the "second tuner" in the two tuner system disclosed becomes occupied. For

example, by either displaying or recording a second program (*e.g.*, element 308, “program guide uses other tuner to record program”), or element 309, “program guide uses other tuner to provide secondary function”). RX-0847C at Q/A 26; RDX-1238 (JX-0006 at Fig 3(b) (annotated)); JX-0006 at 8:33-65, 9:44-59. When a third function is requested, such as in either elements 310 or 311 of Fig. 3(b), the IPG alerts the user with an option to cancel the function of the “other tuner” (elements 312 or 316 respectively). RX-0847C at Q/A 26; RDX-1239 (JX-0006 at Fig 3(b) (annotated)); JX-0006 at 9:9-36, 9:44-59. Elements 312 or 316 of Fig. 3(b) do not apply until there all the tuners are occupied. RX-0847C at Q/A 26. Because the “last allocated tuner” is occupied, the program guide provides an alert to the screen notifying them of the conflict. *Id.* As is logical, the tuners are allocated in serial fashion (tuner 1, tuner 2, until tuner n), and the conflict is identified when the last-allocated tuner (in this scenario, tuner 2) has been allocated and a new tuning request arrives. JX-0006 at 9:44-59; RX-0847C at Q/A 20.

In contrast, Rovi’s construction is an improper attempt to double the scope of the claims. Rovi’s proposal eliminates the specificity of this claim language, and treats the “first tuner” and “second tuner” as interchangeable for resolving the

conflict. RX-0847C at Q/A 21. In essence, Rovi's construction is premised on the concept that in a two tuner system - containing tuner A and tuner B - that either tuner A or tuner B could be the "first" tuner, regardless of when they were allocated a tuning operation. *See* RX-0847C at Q/A 22. Rovi's expert testified repeatedly that in a multi-tuner system, any tuner can be the "first tuner," and any other tuner can be the "second tuner." RDX-1209C (RX-0810 (Balakrishnan Dep., Ex. 5)); RX-0847C at Q/A 22.

For purposes of "canceling the function of the second tuner," Dr. Balakrishnan's testimony makes clear, that in his opinion, "the second tuner" as found in the "displaying. . ." limitation, does not derive its antecedent basis from "a second tuner" in the "determining. . ." limitation of claims 1 and 13. RX-0847C at Q/A 22; RDX-1253 (showing '512, cl. 1 and antecedent basis for "the second tuner"). Dr. Balakrishnan testified that whichever tuner has its operation canceled, that could be considered the second tuner; even if there is a system with 100 tuners, any two could be the "first tuner" and the "second tuner." RX-0847C at Q/A 22; *see also*, RDX-1254C (RX-0813 (Balakrishnan Dep., Ex. 8)). Dr. Balakrishnan even testified that, in his opinion, the "first tuner," and "second tuner," do not have to be the same "first

tuner” and “second tuner” for each of the limitations of the asserted claims. *See* RX-0847C at Q/A 22 (citing to Balakrishnan Dep. Tr.). The effect of Dr. Balakrishnan’s opinion - that whichever tuner’s function is offered for cancelation can be the “second tuner,” - can be diagrammatically shown in RDX-1212 (JX-0006 at Fig. 2(b) (annotated)); RX-0847C at Q/A 22.

All of this has the impact of doubling the claim scope of the patent. And, in fact, Rovi’s expert agreed that under Rovi’s proposed construction, the claim could be read as “canceling a function of ***the first tuner or second tuner***” or any tuner in an n-tuner system, instead of canceling only a “function of the second tuner.” RX-0847C (Bederson RWS) at Q/A 25 (citing to Balakrishnan Dep. Tr.); RDX-1213C (RX-0814 (Balakrishnan Dep., Ex. 9)) (marked by Rovi’s expert to acknowledge his agreement that this revised version of claim 1 accurately reflects his opinion regarding the scope of claim 1 of the ’512 Patent); RX-0847C at Q/A 25 (citing to Balakrishnan Dep. Tr.); RDX-1216C (RX-0815 (Balakrishnan Dep., Ex. 10)) (marked by Rovi’s expert to acknowledge his agreement that this revised version of claim 1 accurately reflects his opinion regarding the scope of claim 1 of the ’512 Patent)); *see also* Tr. 331:13-18 (acknowledging exhibit contained Dr.

680a

Balakrishnan's initials to confirm testimony).

212 - Claim 1	
Claim 1 1. A method for resolving a conflict when multiple operations are performed using multiple tuners controlled by an interactive television program guide, the method comprising: receiving a request to perform a tuning operation; determining that neither a first tuner nor a second tuner are available to perform the requested tuning operation, wherein the first tuner and the second tuner are both capable of performing the tuning operation; and in response to the determination, displaying an alert that provides a user with an opportunity to direct the interactive television program guide to cancel a function of the second tuner to permit the second tuner to perform the requested tuning operation.	Claim 1, Revised 1. A method for resolving a conflict when multiple operations are performed using multiple tuners controlled by an interactive television program guide, the method comprising: receiving a request to perform a tuning operation; determining that neither a first tuner nor a second tuner are available to perform the requested tuning operation, wherein the first tuner and the second tuner are both capable of performing the tuning operation; and in response to the determination, displaying an alert that provides a user with an opportunity to direct the interactive television program guide to cancel a function of the first tuner or the second tuner to permit the first tuner or the second tuner to perform the requested tuning operation.

Actual Claim Language

displaying an alert that provides a user with an opportunity to direct the interactive television program guide to cancel a function of the second tuner to permit the second tuner to perform the requested tuning operation.

Claim as Revised by Dr. Ravin Balakrishnan

displaying an alert that provides a user with an opportunity to direct the interactive television program guide to cancel a function of the first tuner or the second tuner to permit the first tuner or the second tuner to perform the requested tuning operation.

RDX-1214C, Balakrishnan Dep. Ex. 9;
see also RDX-1216C, Ex. 10

And if rewriting the claim was not enough, Rovi's proposed construction also attempts to recapture a claim that was canceled earlier in prosecution. The applicants for the '512 Patent attempted to obtain claims that would encompass canceling a function of any tuner to resolve a conflict. For example, original claim 56 provided the user the option of canceling "one of the prior requests" to "handle the current user request." In short, original claim 56 covered canceling the function of the first tuner or the second tuner to resolve a tuner conflict. See RX-0847C at Q/A 27 (referencing RX-0195.0042 (File History for U.S. Pat. Appl. 11/154,065) (original claim 1), .0047-48 (original claim 35), .0051

(original claim 56)). It is clear the applicants knew the difference between canceling the function of “any tuner” as Rovi now proposes, and the second tuner, as claimed by the ’512 Patent.

Resps. Br. at 174-178 (footnote omitted).

Rovi replies:

Contrary to the parties’ proposed constructions for the term “a second tuner” discussed above (where neither construction of “second tuner” is limited to the “last allocated tuner”), Respondents now contend that the term “*the* second tuner,” in the claim phrase “cancel the function of *the second tuner* to permit *the second tuner* to perform the requested tuning operation,” is limited to the “last allocated tuner.” See Resps. Br. at 174. Respondents provide no basis for construing “*the* second tuner” in this phrase as “last allocated” while also agreeing that the term “*a* second tuner” standing alone simply refers to a tuner other than the “first tuner.” Compls. Br. at 142 (further explaining Respondents’ inconsistent arguments and setting forth authority that the same claim term should be constructed consistently throughout the patent— especially where, as here, the claim term “*the* second tuner” has an antecedent basis.”).

Respondents argue that Rovi’s construction is improper, because Rovi “treats [the] ‘first tuner’ and ‘second

tuner’ as interchangeable” which has the “effect of doubling the scope of the asserted claims.” Resps. Br. at 174-75. In claims 1 and 13, and consistent with the parties’ constructions for “a second tuner,” any tuner may be “the second tuner,” so long as “the first tuner” and “the second tuner” refer to *different* tuners. Compls. Br. at 142-44.

In addition, binding Federal Circuit precedent holds that Rovi’s construction is proper— “the use of the terms ‘first’ and ‘second’ [in a patent claim] is a common patent-law convention to distinguish between repeated instances of an element or limitation.” *Id.* at 143 (quoting *3M Innovation Props.*); *see also id.* at 138 (same). Further, this same authority holds—just as Rovi proposes—that “first” and “second” in claim language is ordinarily understood to mean “instance A” and “instance B” of the same item. *Id.* Respondents’ present no authority that would require—as Respondents’ assert—that the “first tuner” be limited to the tuner used first in time and that the “second tuner” be limited to the tuner “last allocated” in time. Compls. Br. at 142-44; Resps. Br. at 174-77. There is no basis to import any temporal limitation. *Id.*

In support of its attempt to import a “last allocated” limitation into the claims, Respondents point to Figure 3(b) and argue that because, in this *example*, the

tuner whose function is canceled happened to be the tuner that was used second in time, that the claims must necessarily and always be limited to canceling the function of the “last allocated” tuner. Resps. Br. at 175. Figure 3(b) is, however, merely an example of one way the invention could work when using the two-tuner configuration of Figure 2(b).

Compls. Br. at 142-44; *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (holding that it is improper to limit claims based on one exemplary embodiment). The example is illustrative, not limiting. JX-0006 (’512 Patent) at col. 2, lns. 45-48.

Additionally, Respondents contend that Rovi’s construction—which as discussed previously uses “first” and “second” to refer to multiple instances of the same item (as in *3M Innovative Props.*) – is attempting to “recapture a claim [prosecution claim 56] that was canceled earlier in prosecution.” Resps. Br. at 177. Canceled prosecution claim 56, required, among many other limitations, “a plurality of tuners” and contained a requirement that the user be provided the option of canceling “one of the prior requests” to “handle the current user request.” RX-0195 (App. No. 11/154,065) at 42, 48, 51. There is no evidence demonstrating that the patentees’ cancelation of claim 56 and inclusion of

claims 1 and 13 limits claims 1 and 13 to only canceling the function of the “last allocated” tuner or that Rovi is impermissibly attempting to recapture disavowed claim scope by applying “first” and “second” in their ordinarily understood (and non-temporally limited) manner. Compls. Br. at 142-44.

Rovi Reply at 52-54 (footnote omitted).

The administrative law judge construes “cancel the function of the second tuner to permit the second tuner to perform the requested tuning operation” to mean “stop a function utilizing a signal tuned to by the second tuner in order to permit the requested function utilizing a signal tuned to by the second tuner to be performed.”

Figures 4(b) and 4(c), reproduced below, depict program guide viewer options for cancelling a second tuner function:

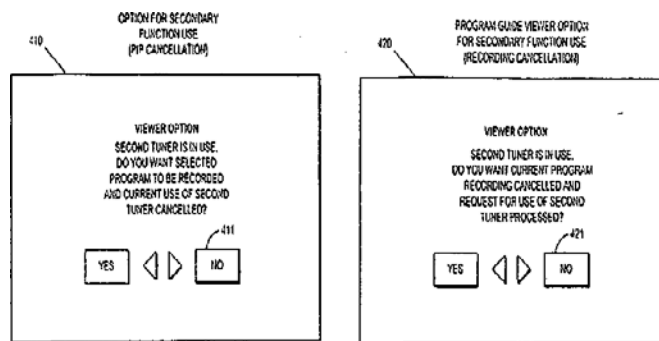


FIG. 4(b)

FIG. 4(c)

The specification explains:

FIG. 4(b) is an illustrative interactive television program guide viewer option selection screen for use in canceling a picture-in-picture function or other secondary user functions in accordance with the present invention. FIG. 4(c) is an illustrative interactive television program guide viewer option selection screen for use in the cancellation of a scheduled recording in accordance with the present invention.

JX-0006 at 2:60-67. In the summary of the invention, the specification explains about tuner allocation:

If the set-top box is equipped with multiple tuners, the interactive television program guide will allocate one of the tuners for recording, the program when it is time for the program to start. However, if all of the tuners are in use, which may be the case if the viewer is watching one program and using a picture-in-picture ("PIP") feature to view another program or to display additional text or graphics by using some other secondary tuner function feature that requires a tuner to operate, ***the interactive television program guide may allocate a tuner for the recording function if the user indicates that he is no longer interested in using the PIP or another secondary tuner function or if the tuner allocation scheme dictates it do so.*** Alternatively, if the

set-top box is equipped with two tuners, one may be dedicated for television viewing and interactive television program guide user features, while the other tuner may be dedicated for recording use only.

Id. at 1:65-2:13 (emphasis added).

Rovi's construction is consistent with the claim language, and is supported by the specification and figures, because it ties the action (cancelling the function) to the second tuner.

(6) Tuning operation

The term "tuning operation" only appears in the claims. The parties have proposed the following constructions:

Rovi's Proposed Construction	Comcast's Proposed Construction
performing an operation utilizing a tuned-to signal	Comcast does not clearly present a construction in its post-hearing brief.

See Rovi Br. at 139; Resps. Br. at 171-74.

Rovi's entire argument for this term follows:

One of ordinary skill in the art would have understood that the term "tuning operation" refers to the "tuning operation" requested by the user and means "performing an operation utilizing a tuned-to signal." CX-0003C (Balakrishnan WS) at Q/A 209. One of

ordinary skill would have understood that the term “tuning operation” refers to operations that are performed on a tuned-to signal, not to the act of tuning to the signal. CX-0003C (Balakrishnan WS) at Q/A 209.

Rovi Br. at 139.

Comcast presents its arguments for this term along with the “tuner” term. The lone paragraph directed to “tuning operation” follows:

Consistent with these dictionaries, the term “tuning operation” should be given its plain and ordinary meaning as well. Rovi seeks to limit the meaning of “tuning operation” to “performing an operation utilizing a tuned-to signal” based on the usage of “tuning operation” in dependent claims 4 and 16, which recite tuning operations (*e.g.*, displaying, recording) the entail operations on the tuned to signal. But claims 4 and 16 depend from claims 1 and 13. These dependent claims contain *additional limitations* (*i.e.*, require particular “tuning operations” such as setting a recording) when compared to the independent claims from which they stem. *See* CX-0003C at Q/A 209. Rovi’s argument, that usage in the dependent claim narrows usage in the independent claim, contradicts the basic law of claim construction. *Tr. of Columbia Univ. in City of New York v. Symantec Corp.*, 811 F.3d 1359, 1370 (Fed. Cir. 2016) (terms

used in both independent claim and dependent claim are not restricted in scope by the additional limitations of the dependent claim). And Rovi also ignores that each of the “tuning operations” recited in these dependent claims, and throughout the specification, are consistent with Respondents’ proposal. Each of these “tuning operations” requires selectively receiving RF signals in a desired frequency channel. Rovi’s proposal eliminates this concept. This is also consistent with the purpose of the invention - the tuning conflict, as disclosed in the ’512 Patent, and acknowledged by Rovi’s expert, results when all the tuners are in use, and therefore cannot select the requested frequency. *See also id.* at 8:66-9:8; Tr. 290:15-25.

See Resps. Br. at 171-74.

Rovi replies:

Respondents argue that Rovi’s construction for “tuning operation”—“performing an operation on a tuned-to signal”—is incorrect. Resps. Br. at 173-74. Contrary to Respondents’ assertions, Rovi’s construction is consistent with, but not limited to, the tuning operations listed in claims 4 and 16. *See id.*; Compl. Br. at 139. Specifically, Rovi’s construction properly equates the claimed “tuning operation” with an operation that utilizes a “tuned-to

signal,” e.g., viewing or recording television programming. *Id.* Simply tuning to a signal, as required by Respondents’ construction, does not indicate whether that signal should be viewed and/or recorded, which as expressed by claims 4 and 16, is a requirement of a “tuning operation.” *Id.*

Rovi Reply at 51.

Comcast replies:

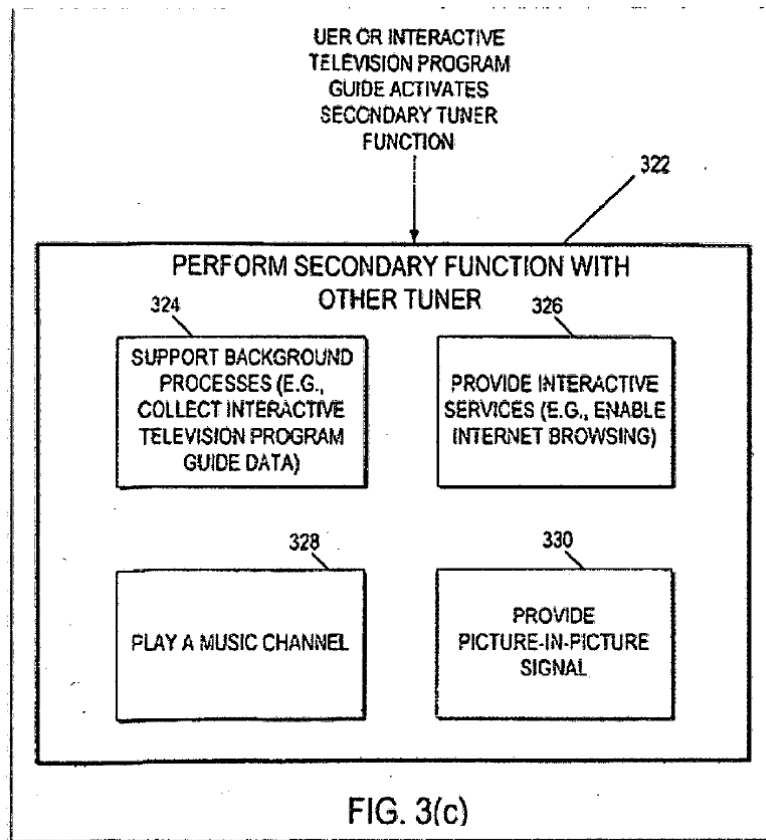
Rovi relies entirely on Dr. Balakrishnan’s opinion that a “‘tuning operation’ is separate from actually tuning to the particular program.” Compl. PoHB at 139. And this opinion is actually consistent with Respondents’ construction which requires performing an operation (“function performed by”) that involves “tuning” (“selectively receiving RF signals in a desired frequency channel”). Rovi’s construction, like its construction for “tuner,” attempts to avoid defining the actual function that constitutes “tuning.”

Resps. Reply at 59 (footnote omitted).

Claims 4 and 16 of the ’512 patent explain that a *tuning function* includes at least “viewing television programming, recording television programming, and performing a secondary tuner function.” JX-0006 at 18:60-65; 20:14-19 (claiming “a tuning function selected from the group consisting of viewing television programming, recording television programming, and performing a secondary tuner

690a

function.” (emphasis added)). Figure 3(c), reproduced below, depicts secondary tuner functions:



Apart from the claims, the specification uses the word “operation” just once:

. . . In contrast to the set-top box embodiment shown in FIG. 5, where set-top box output 508 is directed to VCR 114 and full interactive television program guide use is not possible while in the

watch and record mode, this single-tuner RF-bypass-switch embodiment does not interfere with the functionality of the interactive television program guide when VCR 114 recording function is in **operation** because set-top box tuner output 508 is directed to television 116 and not VCR 114.

JX-0006 at 13:33-42 (emphasis added). This excerpt indicates that “operation” is the act of executing a function.

The administrative law judge construes “tuning operation” to mean “performing an operation utilizing a selected signal.” Rovi’s construction, which requires “utilizing,” generally comports with the claims and specification.

(7) Neither a/the first tuner nor a/the second tuner are available to perform the requested tuning operation

The phrase “available to perform the requested tuning operation” appears only in claims 1 and 13. The parties have proposed the following constructions:

Rovi’s Proposed Construction	Comcast’s Proposed Construction
“neither a/the first tuner nor the second tuner are available to perform the requested tuning operation” has its plain and ordinary meaning where the plain and ordinary meaning is “the first and second tuners	“In this condition, consistent with Respondents’ proposed construction, all the ‘tuners capable of performing the requested operation are in use.’”

cannot perform the requested tuning operation.”	
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See Rovi Br. at 139; Resps. Br. at 178.

Rovi’s entire argument for this term follows:

One of ordinary skill would have understood the phrase “neither a/the first tuner nor the second tuner are available to perform the requested tuning operation” to have its plain and ordinary meaning—“the first and second tuners cannot perform the requested tuning operation.” That is, the tuners are not available or capable of performing the requested tuning operation. CX-0003C (Balakrishnan WS) at Q/A 216-17.

Respondents contend that this term does not need to be construed; however, should construction be deemed necessary, they contend that it should be construed as—“all tuners capable of performing the requested operation are in use.” Respondents’ construction is problematic for two reasons. First, it improperly equates the “first” and “second” tuners with “all tuners,” which may—under the plain meaning of the claims—be more than just two tuners. Second, it improperly equates “unavailable” with “in use” (and the requirement that “all tuners” be “in use”). CX-0003C (Balakrishnan WS) at Q/A 218. Just