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Paper 68
Entered: January 23, 2019

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TWITTER, INC.,
Petitioner,

v.

VIDSTREAM LLC,
Patent Owner.

Case IPR2017-01133
Patent 8,601,506 B2

Before SALLY C. MEDLEY, CHARLES J. BOUDREAU, and JESSICA C. KAISER, *Administrative Patent Judges*.

MEDLEY, *Administrative Patent Judge*.

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

I. INTRODUCTION

Twitter, Inc. ("Petitioner") filed a Petition for *inter partes* review of claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 of U.S. Patent No. 8,601,506 B2 (Ex. 1001, "the '506 patent"). Paper 1 ("Pet."). Youtoo Technologies, LLC (the original "Patent Owner") did not file a Preliminary Response. Upon consideration of the Petition, we instituted an *inter partes* review pursuant to 35 U.S.C. § 314, as to claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 of the '506 patent. Paper 8 ("Dec.").

Subsequent to institution, VidStream LLC (subsequent "Patent Owner") filed a Patent Owner Response (Paper 47, "PO Resp."), Petitioner filed a Reply to Patent Owner's Response (Paper 50, "Reply"), and Patent Owner filed a Sur-Reply to Petitioner's Reply (Paper 57, "Sur-Reply"). Petitioner filed a Motion to Exclude (Paper 54, "Pet. Mot. Exc."), Patent Owner filed an Opposition (Paper 61, "PO Opp. Mot. Exc."), and Petitioner filed a Reply (Paper 63). Patent Owner filed a Motion to Exclude (Paper 56, "PO Mot. Exc."), Petitioner filed an Opposition (Paper 60, "Pet. Opp. Mot. Exc."), and Patent Owner filed a Reply (Paper 61). An oral hearing was held October 19, 2018. A transcript of the hearing has been entered into the record. Paper 67 ("Tr.").

This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). For the reasons that follow, Petitioner has not shown by a preponderance of the evidence that any of the challenged claims are unpatentable.

A. Related Matters

The parties state that the '506 patent is the subject of a court proceeding styled *Youtoo Technologies, LLC v. Twitter, Inc.*, Case No. 3:16-cv-00764-N (N.D. Tex.). Pet. 1; Paper 4, 1.

Patent Owner at the time, Youtoo Technologies, LLC ("Youtoo"), filed for bankruptcy on November 30, 2017. Ex. 2001. During the bankruptcy proceeding, the bankruptcy court approved an agreed order to sell certain of Youtoo's property, including the patent challenged in this proceeding. Ex. 1027; Ex. 1029. On May 1, 2018, the bankruptcy trustee filed a report of sale indicating the challenged patent had been sold to STI-ACQ LLC, as assignee of Arundel Ventures LLC. Ex. 1030. On May 7, 2018, and consistent with the report of sale, new mandatory notices were filed indicating STI-ACQ as Patent Owner. Paper 34. On May 18, 2018, new mandatory notices were filed indicating that VidStream LLC is the current Patent Owner. Paper 36; Paper 41.[1] Due to the unusual facts of this proceeding, and in accordance with 37 C.F.R. § 42.100(c), the Chief Administrative Patent Judge extended the one-year period for issuing a Final Written Decision in the present proceeding. Paper 38; Paper 39.

B. The '506 Patent

The '506 patent is directed to computer methods and systems for receiving and distributing user-generated video content. Ex. 1001, Abstract. Figure 2 is reproduced below.

[1] Except as otherwise noted, "Patent Owner" herein refers to VidStream LLC.

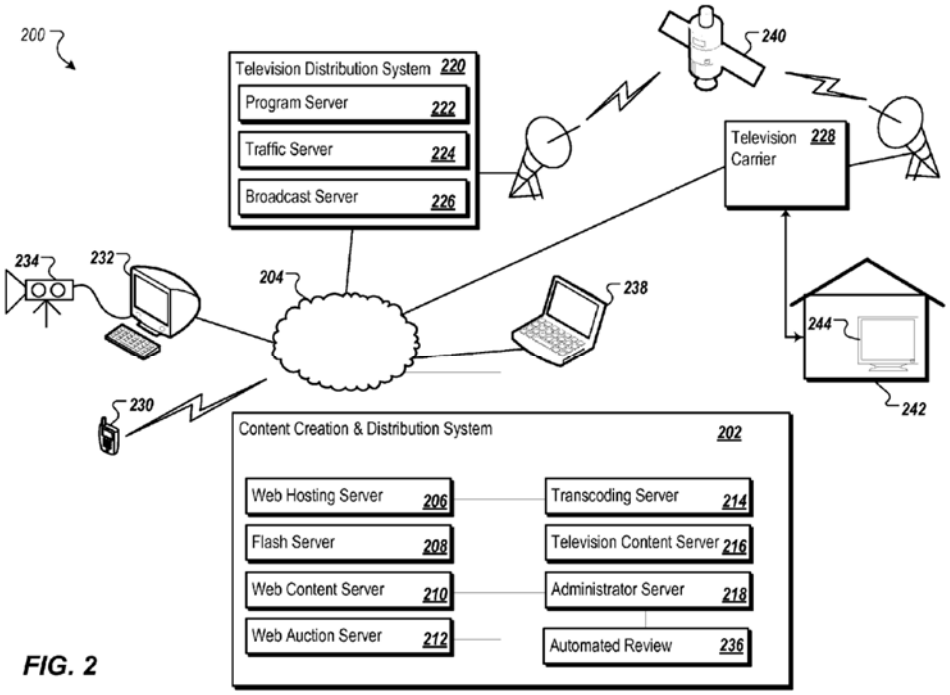

FIG. 2

Figure 2 shows a content creation and distribution system (CCDS) 202. *Id*. at 13:66–67. System 200 can include several servers connected to one or more communications network(s) 204. *Id*. at 13:67–14:2. CCDS 202 includes a plurality of servers 206, 208, 210, 212, 214, 216, and 218. *Id*. at 14:6–11. CCDS 202 communicates with a television distribution system 220, that can include a network operations center for a television network and/or uplink facility from which a television network feed is distributed to carriers 228 that provide television services. *Id*. at 14:24–28. A user having a mobile device 230 capable of capturing SD or HD video or a computing device 232 having a video camera 234 can connect to the communications network(s) 204 and interface with CCDS 202. *Id*. at 14:37–43. Web hosting server 206 provides one or more web pages through which users can access services provided by CCDS 202. *Id*. at 14:43–45. Web hosting server 206 can host a registration web page that allows users to register with the CCDS 202 and a HD recorder web page that provides users with access to a thin

client application (or web application) that supports video capture. *Id*. at 14:45–49. Web hosting server 206 also can allow fat client applications to be downloaded and installed on mobile device 230 or computing device 232. *Id*. at 14:51–53.

C. Illustrative Claim

Petitioner challenges claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 of the '506 patent. Claims 1, 23, and 26 are independent claims. Claim 1, reproduced below, is illustrative of the claimed subject matter (highlighting added for emphasis):

> 1. A method performed by data processing apparatus, the method comprising:
>
> receiving video data from a client computing device at a server system, wherein the video data is captured using a camera communicably connected to the client computing device in accordance with instructions executed on the client computing device, *wherein the instructions are provided to the client computing device by the server system and cause the video data to be captured in accordance with predetermined constraints* and the predetermined constraints include a video length defined by the instructions, with the video length predefined at the server system in accordance with a time slot in a linear television programming broadcast;
>
> transcoding the video data, using a server included in the server system, into at least one different format, wherein at least one format of the transcoded video data defines a video file in a format appropriate for inclusion in the linear television programming broadcast; and
>
> transferring the transcoded video data to a distribution server for distribution.

Id. at 27:63–28:17.

D. Instituted Grounds of Unpatentability

We instituted trial based on all asserted grounds of unpatentability as follows (Dec. 15):

References	Basis	Challenged Claims
Lahti[2], Conway[3], and Novak[4]	§ 103	1, 4–8, 11, 13–15, 23–26, 29, and 30
Lahti, Novak, Current TV Mobile[5], and Current TV FAQ[6]	§ 103	1, 4–8, 11, 13–15, 23–26, 29, and 30

II. ANALYSIS

A. Principles of Law

To prevail in its challenge to Patent Owner's claims, Petitioner must demonstrate by a preponderance of the evidence that the claims are unpatentable. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time of the invention to a person having ordinary skill in the art. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398,

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[2] Janne Lahti et al., "A Mobile Phone-based Context-Aware Video Management Application," Multimedia on Mobile Devices II, Proc. of SPIE-IS&T Electronic Imaging, SPIE Vol. 6074, 60740O, 2006 (Ex. 1006) ("Lahti").
[3] U.S. Patent Application Publication No. 2009/0157697 A1, filed Dec. 31, 2008, published June 18, 2009 (Ex. 1007) ("Conway").
[4] U.S. Patent Application Publication No. 2002/0104099 A1, filed Dec. 19, 2000, published Aug. 1, 2002 (Ex. 1008) ("Novak").
[5] Current TV "create & upload: mobile" webpage (Ex. 1009) ("Current TV Mobile").
[6] Current TV "FAQ" webpage (Ex. 1011) ("Current TV FAQ").

406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). Petitioner relies on the testimony of Dr. Henry Houh, who testifies that a person with ordinary skill in the art "would possess (i) a Bachelor's degree in Computer Science, Electrical and/or Computer Engineering, or equivalent training, and (ii) approximately two years of experience in network architecture and multimedia systems, including creating and distributing multimedia." Pet. 6–7 (citing Ex. 1003 ¶ 41). Dr. James Olivier, Patent Owner's declarant, applies a similar definition. PO Resp. 4–5 (citing Ex. 2002 ¶ 39).

For purposes of this decision, we adopt Dr. Houh's assessment of a person with ordinary skill in the art.

C. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the

specification of the patent in which they appear.[7] 37 C.F.R. § 42.100(b) (2016). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Petitioner proposes constructions for the following claim terms found in the challenged claims: '"video length defined by the instructions, with the video length predefined at the server system in accordance with a time slot in a linear television programming broadcast' (all claims)," "'transcoding' (all claims)," and "'buffered on the client computing device using scripts' (claim 5)." Pet. 10–12. In our Decision to Institute, we interpreted these terms. Dec. 5–7. Neither party has indicated that our interpretations were improper, and we do not perceive any reason or evidence that now compels any deviation from our initial interpretations. Accordingly, the following constructions apply to this Decision: "video length defined by the instructions, with the video length predefined at the server system in accordance with a time slot in a linear television programming" means "computer instructions provided by a server computing device to a client computing device that identify a video length suitable for including video into a traditional television program or broadcast"; "transcoding" means "converting from one video format to another"; and "buffered on the client computing device using scripts" means "temporarily storing data in memory

[7] We would construe the claim term discussed below the same under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

of the client computing device using a computer program, software application, or other unit of computer code."

Petitioner further proposes a construction for "predetermined constraints" recited in all of the challenged claims. Pet. 8–9. We preliminarily adopted Petitioner's construction. Dec. 6. Patent Owner proposes a "more appropriate version of the Petitioner's proposed construction" as "parameters, rules, or restrictions that ensure compliance and compatibility with system requirements or goals, examples of which may include but are not limited to video length, video format type, video image resolution, video frame rate, or video transmission bit rate, etc." PO Resp. 6–7. Petitioner agrees with Patent Owner's edits to Petitioner's proposed construction. Reply 1 n.1; Tr. 6:12–21. For purposes of this Decision, we adopt Patent Owner's construction of "predetermined constraints."

D. Obviousness of claims over Lahti, Conway, and Novak

Petitioner contends claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 are unpatentable under 35 U.S.C. § 103(a) as obvious over Lahti, Conway, and Novak. Pet. 12–61. In support of its showing, Petitioner relies upon the declaration of Dr. Henry Houh. *Id.* (citing Ex. 1003).

1. Lahti

Lahti describes a video management system including a video server and a mobile camera-phone application called MobiCon. Ex. 1006, 1 (Abstract). MobiCon allows a user to capture videos, annotate them with metadata, specify digital rights management (DRM) settings, upload videos over a cellular network, and share the videos with others. *Id.* Lahti

describes that the MobiCon application is downloaded over the air to a mobile camera-phone. *Id.* at 5. MobiCon operates on the Candela system architecture, which was developed as a solution for general video management and includes tools for video creation, analysis, annotation, storage, search, and delivery phases. *Id.* at 4.

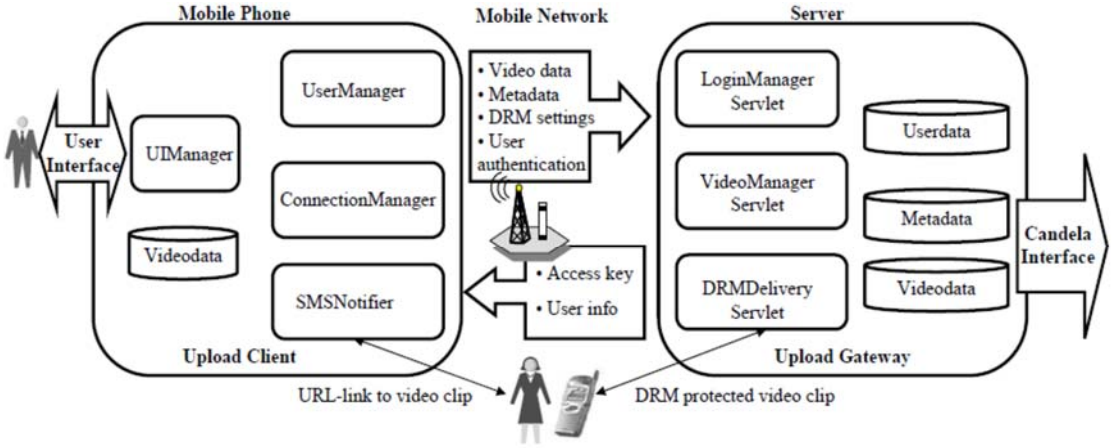

Figure 3: High-level description of MobiCon.

Figure 3 of Lahti is a high-level description of MobiCon.

As shown above, the UploadClient, which is a mobile Java application, runs on a mobile phone, and UploadGateway, which is implemented as a Java servlet, runs on the server. *Id.* at 5. The system provides wireless access over a mobile phone network to enable storing video clips on the server where it is possible to run more computation-intensive operations such as video transcoding. *Id.* Within the UploadClient is the UIManager. *Id.* The UIManager coordinates the video capture using the mobile phone's camera, the saving of the video data to the Java Record Store system, the sending of video data to the Java Record Store system, and the sending of video sharing SMS messages to the other users. *Id.* Within the UploadGateway is the Video Manager Servlet. *Id.* at 7. After the video

clip is uploaded via the UploadGateway, the video clip is handed over to the Video Manager Servlet. *Id.* In the Video Manger Servlet, the video clip is transcoded into different formats and bit rates in order to provide a scalable service quality for different devices and network connections. *Id.* The Video Manager Servlet prepares Real Video, H.264, and H.263 encoding for delivering the captured video content to mobile devices and MPEG-4 file format for desktop computers. *Id.*

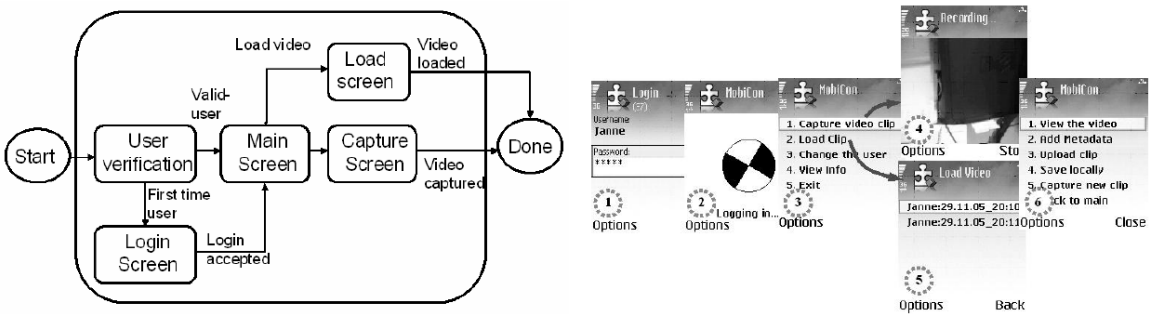

Figure 4: User authentication and video capturing: UI Flow Diagram (left) and UI screenshots (right).

Figure 4 of Lahti is a high-level description of user authentication and video capturing.

MobiCon functionality permits user authentication and video capture, in addition to editing/uploading the video clip. *Id.* at 6. The user authentication and video capture functionalities are illustrated in Figure 4. *Id.* In Figure 4, MobiCon's main screen is displayed after authentication of the user's username and password. *Id.* In the main screen, the user has the option to capture a new clip (Screenshot 4). *Id.* A new video clip is captured in Capture Screen using Mobile Media API, and it is recorded according to 3GPP specification using AMR coding for audio and H.263 at 176×144 pixels size at 15 frames per second for video. *Id.*

2. Conway

Conway describes a method and system for creating variable-length media clips from a media stream that is received at a media player. Ex. 1007 ¶ 17. The player provides information about the media stream or a program that is currently being viewed to a remotely located server to obtain one or more rules relating to the creation of media clips. *Id.* The rules may include maximum allowable clip length, as well as limitations on displaying or distributing the clip, that are determined based on program name, network, or other information that is the source of the clip. *Id.* The media player creates the clip in accordance with received rules, and provides the clip to a distribution server for distribution or sharing with other users. *Id.* Limitations of display or distribution of the clip may be contained within metadata associated with the clip to allow the distribution server to implement the rules for the particular clip. *Id.*

3. Novak

Novak describes a system and method to allow presentation of media objects to an end user at a client terminal, such as a television set. Ex. 1007 ¶ 10. An individual can upload media objects to a server and specify the manner in which the media objects are to be played as a media program to an end user, including the scheduling and sequencing of the media objects. *Id*. The client terminal of the end user can be subscribed or provisioned such that information related to media objects, such as media program listings, can be provided in an electronic program guide. *Id*. The media program can be provided to the end user via a synthetic channel, which can be tuned to or selected by the end user. *Id*.

4. Discussion

Petitioner asserts that the combination of Lahti, Conway, and Novak describes all of the elements of claims 1, 4–8, 11, 13–15, 23–26, 29, and 30. Pet. 12–61. Claim 1 recites "wherein the instructions are provided to the client computing device by the server system and cause the video data to be captured in accordance with predetermined constraints."[8] Independent claim 23 recites a similar phrase, "wherein the user interface is provided in accordance with instructions received from a server system and the instructions cause the content to be captured in accordance with predetermined constraints."[9] Lastly, independent claim 26 recites a similar phrase of "one or more servers . . . to: provide instructions for use by the user devices for capturing video data in accordance with predetermined constraints."[10] Petitioner relies on Lahti to meet these disputed phrases. Pet. 21–23, 41–42, 46–47.

Claim 1 also requires that the "predetermined constraints include a video length defined by the instructions." Claims 23 and 26 include similar language. Petitioner relies on Conway for its disclosure of "video length constraints provided to a client computing device by the server system." Pet. 32; *see also id*. at 41, 46. We understand, and the record is clear, that Petitioner relies on Conway to meet the "video length" limitations of claims

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[8] This phrase is included in what Petitioner refers to as "limitation 1[c]." Pet. 25–26.
[9] This phrase is included in what Petitioner refers to as "limitation 23[c]." Pet. 41.
[10] This phrase is included in what Petitioner refers to as "limitation 26[d]." Pet. 46.

1, 23, and 26, but relies solely on Lahti to meet the claimed instructions (provided to the client computing device by the server system) to "cause the video data to be captured in accordance with predetermined constraints." Pet. 14 ("This Petition relies on Lahti for disclosing most of the limitations of the Challenged Claims. The Petition relies on Conway for its disclosure of a maximum allowable clip length."), 16 ("Incorporating the clip length constraint [from Conway] into Lahti would have required only routine programming skills . . . ."), Reply 15, 19–20 ("Petitioner does not rely on Conway for the client computing device or video capture aspects of the Challenged Claims. . . . Petitioner relies on Conway merely for the rule (constraint) for limiting video length."). During oral argument, Petitioner confirmed that Conway was relied on for meeting the "video length" limitations and not "for the concept of downloading predetermined parameters onto the phone . . . that include clip length . . . because that's coming from Lahti." Tr. 23:16–24:15.

Accordingly, a dispositive issue of this trial is whether Petitioner has shown by a preponderance of the evidence that Lahti describes predetermined constraints defined by instructions provided to a mobile phone by the server, e.g., downloaded, as required by claims 1, 23, and 26. PO Resp. 8–22; Reply 1–14; Tr. 24:6–9, 24:22–25:23, 35:10–12. For the reasons that follow, we determine that Petitioner has not shown by a preponderance of the evidence that Lahti teaches or suggests the disputed phrases of claims 1, 23, and 26.

Regarding claim 1's "wherein the instructions are provided to the client computing device by the server system," and similar language of claims 23 and 26, Petitioner contends that Lahti's server provides MobiCon

to the client computing device (mobile phone). Pet. 26 (citing Ex. 1006, 5), 41, 46. Petitioner argues that a person having ordinary skill in the art would have understood that a mobile application constituted software code that controls the operation of a device when executed on that device. Pet. 26 (citing Ex. 1003 ¶ 103), 41, 46.

We find that Lahti describes a server that downloads the MobiCon application to a mobile phone. Lahti describes that

> MobiCon naturally needs to be easily installed without any extra tools or additional instructions. The server allows distribution of MobiCon application easily to mobile phone users by using Over-The-Air (OTA) specification from the Open Mobile Alliance, which enables mobile applications to be downloaded and installed over the cellular network.

Ex. 1006, 5. Moreover, we agree with Petitioner's contentions that a person having ordinary skill in the art would have understood that a mobile application constitutes software code that controls the operation of a device when executed on that device. Pet. 26 (citing Ex. 1003 ¶ 103), 41, 46. We find that MobiCon is such an application that includes code, e.g., instructions for controlling at least some aspects of a user's mobile phone. Thus, we determine that Petitioner has shown by a preponderance of the evidence that Lahti describes that "instructions are provided to the client computing device by the server system" as claimed in claim 1, the similar claim language of claim 23, and "one or more servers . . . to: provide instructions for use by the user device" as recited in claim 26. Patent Owner does not dispute that Lahti describes these portions of the disputed phrases. PO Resp. 1.

Claim 1 also recites that the instructions (provided to the client computing device by the server system) "cause the video data to be captured in accordance with predetermined constraints." Claims 23 and 26 recite a similar requirement. Petitioner contends that Lahti's MobiCon provides parameters by which the mobile device (on which the MobiCon application is executing) captures video data. Importantly, Petitioner contends, "Lahti explains that MobiCon captures video using a user interface capture screen and further *describes the parameters provided by the app that control the format and frame rate for the captured video*." Pet. 27 (emphasis added). In support of this contention, Petitioner cites to the following passage from Lahti:

> Then, MobiCon's main screen is displayed (Screenshot 3), where the user can choose to view and edit personal information, to load video clips, or to capture a new clip (Screenshot 4). *A new video clip is captured in Capture Screen using Mobile Media API and it is recorded according to 3GPP specification using AMR coding for audio and H.263 at 176×144 pixels size at 15 frames per second for video*.

Ex. 1006, 6. After explaining that parameters such as video format, video resolution, and video frame rate are "predetermined constraints," Petitioner concludes that Lahti "teaches providing instructions that 'cause the video data to be captured in accordance with predetermined constraints.'" Pet. 27 (citing Ex. 1003 ¶¶ 105–106). Dr. Houh testifies that "[t]he MobiCon app provides parameters to the mobile device that control the characteristics of the video captured by the device." Ex. 1003 ¶ 106.

Patent Owner argues that Petitioner's contentions are not supported by Lahti itself because the passage Petitioner relies on from Lahti does not expressly or implicitly describe that the parameters are provided by the

instructions provided to the client computing device by the server system, e.g., the MobiCon application. PO Resp. 8–12. Patent Owner argues that the above description of recording video using parameters is equally consistent with recording video using a device's native capabilities, "since all digital video data captured by camera phones or digital cameras necessarily inherently has a format (e.g., H.263), a resolution (e.g., 176×144), and a frame rate (e.g., 15 frames per second)." PO Resp. 9–10 (citing Ex. 2002 ¶ 58). Patent Owner further argues that it is more likely that the parameters came from the device's native capabilities described in the Lahti example. *Id*. at 12–13 (citing Ex. 1006, 6; Ex. 2002 ¶¶ 60–62).

We agree with Patent Owner that the passage Petitioner relies on to meet the disputed phrase does not describe that the predetermined constraints, including frame rate, are defined by the instructions (the MobiCon app that was downloaded from a server). Neither the Petition nor Petitioner's expert explains how Lahti meets the disputed phrase; only that it does. Pet. 26–27 (citing Ex. 1006, 6; Ex. 1001, 4:40–43, 10:66–11:6; Ex. 1003 ¶¶ 103–106). That representation, however, is not supported by Lahti itself.

First, we find that Lahti does not expressly state that the predetermined constraints come from the MobiCon application. The above passage is within the section styled "4.3 MobiCon Interface Flow Diagrams." Ex. 1006, 6. The first sentence of that section explains, "This section presents the MobiCon functionality from the user perspective with a walkthrough of typical usage scenarios." *Id*. Thus, the passage is within a section that describes an example, e.g., a typical usage scenario, "from the user perspective." The second sentence from the above passage states that a

new video clip "is captured in Capture Screen using Mobile Media API." That same sentence then states "and it [the new video clip] is recorded according to 3GPP specification using AMR coding for audio and H.263 at 176×144 pixels size at 15 frames per second for video." Notably, Lahti does not describe that the new video clip is recorded using parameters (instructions, or predetermined constraints) from the MobiCon application or even the Mobile Media API, even assuming the Mobile Media API to be part of MobiCon[11] to record the new clip.

Second, it is not disputed that the described parameters from the above passage, such as format (e.g., H.263), resolution (e.g., 176×144), and frame rate (e.g., 15 frames per second) are consistent with recording parameters of mobile phones. PO Resp. 9–10 (citing Ex. 2002 ¶ 58), 21; Reply 7 (acknowledging that a "POSITA would understand that devices in the pertinent timeframe were capable of recording at multiple resolutions and frame rates"). Moreover, record evidence shows that in 2006, the year Lahti published, technical specifications of the only phone described in Lahti—the Nokia 6630—describe as a video format H.263, a resolution of 176×144 pixels, and a frame rate of 15 frames per second. Ex. 1006, 8; Ex. 2005, 2 (describing under "Video Recorder" resolution of "174 × 144" pixels and "H.263 video"); Ex. 2006, 3 (describing "Camcorder Resolution" as "176×144 pixel" and "15 fps"); Ex. 2007, 3 (describing under "Digital Player (Recorder)" "3GP, H.263").[12] These native video capture parameters

[11] Neither the Petition nor Dr. Houh (Ex. 1003) explains what the Mobile Media API is.

[12] As explained below in connection with Petitioner's Motion to Exclude, we disagree with Petitioner that "[e]ach exhibit is hearsay." Pet. Mot. Exc. 2.

of the Nokia 6630 phone, the only described phone in Lahti, are the exact same as those described in the above paragraph.

Thus, the described Lahti parameters could have come from the recording parameters of the mobile phone mentioned in the singular example. Lahti simply does not state where the parameters originate, and neither the Petition nor Dr. Houh's original declaration provides an explanation for why the parameters come from the MobiCon application as opposed to somewhere else, like the mobile device. Again, the Petition and Petitioner's expert fail to explain how Lahti meets the disputed phrase; only that it does. Pet. 26–27 (citing Ex. 1006, 6; Ex. 1001, 4:40–43, 10:66–11:6; Ex. 1003 ¶¶ 103–106). As such, the Petition fails to show by a preponderance of the evidence that Lahti meets the disputed phrase.[13]

In its Reply, Petitioner directs attention to several new passages in Lahti, along with new testimonial evidence to support the position taken in the Petition—that Lahti describes the disputed claimed phrase. Reply 2–4 (citing Ex. 1052 ¶¶ 13–20). For instance, Petitioner argues that a person having ordinary skill in the art "would understand Lahti to teach that changes are made to mobile phone settings using Software Developer Kits [SDKs], which are tools used by the paper's authors, stating that '[v]ideo recording . . . is relatively straightforward to implement with vendor provided SDKs.'" Reply 10 (citing Ex. 1006, 3). Petitioner further directs attention to Dr. Houh's cross examination deposition where he explains how

[13] The burden of showing something by a preponderance of the evidence simply requires the trier of fact to believe that the existence of a fact is more probable than its nonexistence. *Concrete Pipe & Prods. of Cal., Inc. v. Constr. Laborers Pension Tr. for S. Cal.*, 508 U.S. 602, 622 (1993).

SDKs and application programming interfaces (APIs) work and how Lahti's mention of SDKs would have been understood to mean that the MobiCon application specified parameters, including frame rate, for video capture. Reply 10 (citing Ex. 2008, 63:10–68:2, 75:10–76:4, 83:7–86:11, 91:3–20). Also in the Reply, Petitioner presents new testimony, explaining the state of the art regarding mobile application tools such as operating systems, APIs, and SDKs. Reply 12–13 (citing Ex. 1052 ¶¶ 5–16). Moreover, for the first time, Petitioner contends in the Reply that the parameters would come from the UIManager. Reply 3. Notably, there is no explanation of SDKs, APIs, operating systems, or how the parameters come from MobiCon's UIManager in connection with the Petition. There also is no explanation in the Petition of how a person having ordinary skill in the art would have understood, based on their knowledge of SDKs, APIs, operating systems, and MobiCon's UIManager that Lahti describes the disputed claimed phrase. We determine that the Reply as outlined above raises several new issues.

In its Petition, Petitioner points to a single paragraph from Lahti as meeting the disputed claim language, without explaining how the paragraph meets the disputed claim language. Pet. 26–27 (citing Ex. 1006, 6; Ex. 1003 ¶¶ 103–106). Petitioner's Reply provides much more explanation and evidence that are missing from the Petition under the guise of responding to Patent Owner's Response. We determine, however, that such explanation and evidence, which raises new issues, should have been presented in the context of the Petition. Accordingly, we need not and do not consider the new evidence and new arguments made in the Reply that Petitioner should have presented as part of the Petition. *See Intelligent Bio-Sys., Inc. v. Illumina Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) ("Once the Board

identifies new issues presented for the first time in reply, neither this court nor the Board must parse the reply brief to determine which, if any, parts of that brief are responsive and which are improper."). For this reason alone, we determine that Petitioner has failed to show that claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 are unpatentable under 35 U.S.C. § 103 as obvious over Lahti, Conway, and Novak.

Alternatively, even considering Petitioner's additional Reply arguments and evidence, Petitioner fails to show by a preponderance of the evidence that Lahti meets the disputed phrase. To begin with, and importantly, Petitioner's Reply fails to direct us to any other passages in Lahti that expressly describes the disputed claim language. In addition, Petitioner does not dispute that the parameters from the above Lahti passage are consistent with parameters from native devices, e.g., mobile phones during the pertinent timeframe. Reply 7 (acknowledging that a "POSITA would understand that devices in the pertinent timeframe were capable of recording at multiple resolutions and frame rates"); Ex. 1052 ¶ 15; Tr. 12:7–10, 13:17–14:3.

Petitioner argues, however, that because Lahti's MobiCon is a robust video production application, a person having ordinary skill in the art would have understood Lahti to teach the disputed claim phrase. Reply 2–5. In particular, Petitioner directs attention to other passages in Lahti and argues that Lahti's MobiCon UIManager handles all capturing and recording of video, including the described recording "according to 3GPP specification using AMR coding for audio and H.263 at 176×144 pixels size at 15 frames per second for video." Reply 2–4 (citing Ex. 1006, 1, 3, 5, 6). Petitioner further argues that Dr. Olivier conceded that MobiCon's UIManager

"controlled at least some aspects of the video capture process." Reply 4 (citing Ex. 1051, 136:7–22).

We have reviewed the portions of Dr. Olivier's testimony to which we are directed. Ex. 1051, 136:7–22. We do not find that Dr. Olivier testified that the UIManager controlled the predetermined constraints, such as to meet the claim 1 requirement that "the video data to be captured in accordance with predetermined constraints," or the similar requirements recited in claims 23 and 26. Moreover, neither Petitioner nor Dr. Houh provides details about the UIManager or the Mobile Media API described in Lahti for us to conclude that the UIManager handles all capturing and recording of video as asserted. Reply 2–4; Ex. 1052 ¶¶ 14, 17. Dr. Houh, in his second declaration, testifies that Lahti describes that MobiCon's UIManager is a controller component, and that it coordinates the video capture using the mobile phone's camera. Ex. 1052 ¶ 17 (quoting Ex. 1006, 5). Dr. Houh, however, does not explain what Lahti's MobiCon UIManager includes or how it works. Simply referring to the portion of Lahti that describes that the UIManager coordinates video capture using the mobile phone's camera does not alone lead us to conclude that the described parameters come from MobiCon's UIManager as opposed to the phone itself. We do not know from that passage what is doing what insofar as video capturing is concerned. That the UIManager coordinates video capture using the mobile phone's camera could mean that either the UIManager or the phone camera provides the parameters for recording video. The passage is vague, and Dr. Houh does not explain the passage in any way. Thus, Dr. Houh does not support his contentions with a sufficient factual basis for us to give his testimony substantial weight. 37 C.F.R. § 42.65(a).

Moreover, when asked whether he did anything outside of reviewing Lahti to determine how the UIManager actually functions, Dr. Houh testified that he did not. Ex. 2010, 154:12–25. Also, when asked about the Mobile Media API and the UIManager described in Lahti, Dr. Houh testified that he did not know whether the mobile media API merely allowed the UIManager to "kick off a native camera application on a phone." He testified that he could not tell either way without doing some investigation. *Id*. at 172:2–16. The above testimony undermines Dr. Houh's original statement that the recording of new video with the described parameters "is all handled by MobiCon's UIManager." Ex. 1052 ¶ 17. His testimony on this issue, therefore, is entitled to little weight. Accordingly, Petitioner's arguments are unsupported by sufficient evidence to show by a preponderance of the evidence that the disputed claimed phrase is met by Lahti.

We also have considered Petitioner's reliance on the sentence in Lahti that states, "Video *recording*, the first function, is relatively straightforward to implement with vendor provided SDKs." Ex. 1006, 3. Petitioner argues that this sentence makes it "explicit that MobiCon does control video recording on various types of mobile phones, and does so in conjunction with vendor provided software development kits." Reply 6 (citing Ex. 1006, 3) (emphasis omitted). Petitioner contends that if "MobiCon did not affect the manner in which video was recorded, and instead relied solely on each device's native recording capabilities, there would be no reason for Lahti to disclose the identified frame rate, let alone using SDKs to implement video recording." Reply 6 (citing Ex. 2008, 61:25–63:8). Petitioner asserts that a person having ordinary skill in the art "would have been very familiar with mobile application development tools, such as SDKs and APIs that

accompany mobile devices' operating systems, and would have known that such tools could be programmed to specify certain parameters, including the resolution and frame rate at which video recording should be made." Reply 7.

These assertions, however, do not withstand further scrutiny. Lahti does not elaborate on how video recording using MobiCon is implemented with vendor provided SDKs or what that means. Moreover, Lahti does not state which parts or parameters, if any, of video recording are implemented with vendor provided SDKs. As Dr. Houh testified, it could be that MobiCon just provides instructions for the native camera to record video using the phone's native parameters. Ex. 2010, 172:2–16. Dr. Houh simply does not explain how MobiCon would have been implemented with vendor provided SDKs. Ex. 1052 ¶¶ 7–20. As explained above, when asked whether he did anything outside of reviewing Lahti to determine how the UIManager actually functions, Dr. Houh testified that he did not (Ex. 2010, 154:12–25) and that he did not know how MobiCon's UIManager and MobileMedia API functioned (*id.* at 172:2–16). Accordingly, Petitioner's argument that SDKs and APIs that accompany mobile devices' operating systems *could be programmed* to specify certain parameters, including the resolution and frame rate at which video recording should be made (Reply 7), is unavailing because the record evidence fails to show that Lahti engaged in such programming of devices *using the MobiCon application*.[14]

[14] Petitioner does not argue that it would have been obvious to alter Lahti to meet the disputed claim phrase. Rather, Petitioner maintains that Lahti, in light of the knowledge of a person having ordinary skill in the art, meets the disputed claim phrase.

Petitioner also argues that Lahti's description is as detailed as the '506 patent with respect to the server-provided constraints. Reply 12–14. We disagree. In making this argument, Petitioner ignores several passages in the '506 patent detailing how a thin client application installed on a user device "can enforce predetermined constraints on the captured video" such as "to ensure that the video file can be transcoded." Ex. 1001, 10:34–11:35. Petitioner only discusses broad descriptions from the '506 patent, which we determine is not persuasive to show that Lahti's description is as detailed as the '506 patent with respect to the server-provided constraints.

We also have considered Petitioner's arguments essentially attacking the credibility of Patent Owner's expert, Dr. Olivier. Reply 8–12. In particular, Petitioner argues that (1) Dr. Olivier focused on too few phone models in arriving at his conclusions; (2) Dr. Olivier failed to look at phones from 2006 to 2011; and (3) other evidence tends to show that phones at the time of Lahti and up to the time of the invention were capable of recording at multiple resolutions. *Id*. These arguments, however, are not particularly helpful to Petitioner, because it is not incumbent upon Patent Owner to show that its claims are patentable. Rather, the burden is on Petitioner to show that the claims are unpatentable. For instance, even assuming that the specific phone mentioned in Lahti, the Nokia 6630 (Ex. 1006, 8), was capable of recording at multiple resolutions, that assumption does not lead to the conclusion that MobiCon controls the parameters described in the paragraph reproduced above for all of the reasons we have provided already. Again, Petitioner simply has not provided sufficient evidence for us to conclude that the described parameters are part of the instructions from the MobiCon application as opposed to the native mobile device.

In summary, the Petition fails to show by a preponderance of the evidence that the disputed claim phrase is met by Lahti. We further determine that the Reply goes beyond the scope of the Petition and therefore, we need not consider the new arguments or evidence it has raised. Alternatively, even considering the Reply arguments and evidence, along with the Petition arguments and evidence as a whole, we determine that Petitioner fails to show by a preponderance of the evidence that Lahti meets the disputed claim phrases in independent claims 1, 23, and 26. Claims 4–8, 11, 13–15 depend either directly or indirectly from claim 1, claims 24 and 25 depend directly from independent claim 23, and claims 29 and 30 depend directly from independent claim 26 and include the disputed phrases discussed above. Accordingly, Petitioner has failed to show that claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 are unpatentable under 35 U.S.C. § 103 as obvious over Lahti, Conway, and Novak.[15]

E. Obviousness of claims over Lahti, Novak, Current TV Mobile, and, Current TV FAQ

Petitioner contends claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 are unpatentable under 35 U.S.C. § 103(a) as obvious over Lahti, Novak, Current TV Mobile, and Current TV FAQ. Pet. 61–69. In support of its showing, Petitioner relies upon the declaration of Dr. Henry Houh. *Id.* (citing Ex. 1003).

As explained above, Petitioner has not shown, by a preponderance of the evidence, that claims 1, 23, and 26 would have been obvious over Lahti,

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[15] Because Petitioner has failed to show that any of the challenged claims are unpatentable for the reasons discussed above, we need not and do not consider Patent Owner's remaining arguments regarding this challenge.

Conway, and Novak. For this challenge, Petitioner relies on Lahti to meet the "wherein the instructions are provided to the client computing device by the server system and cause the video data to be captured in accordance with predetermined constraints" claim 1 phrase and similar phrases of claims 23 and 26 as it did in the above challenge. Pet. 64–65. For the same reasons provided above, Petitioner has failed to show that claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 are unpatentable under 35 U.S.C. § 103 as obvious over Lahti, Novak, Current TV Mobile, and Current TV FAQ.

F. Petitioner's Motion to Exclude

Petitioner moves to exclude Exhibits 2003–2007. Pet. Mot. Exc. Exhibit 2003 is a webpage styled "Review GSM Phone Nokia 6270." Ex. 2003. Exhibit 2004 is a webpage styled "Nokia E50 Hands-on Preview." Ex. 2004. Exhibit 2005 is a webpage describing "Nokia 6630 Phone Features." Ex. 2005. Exhibit 2006 is a webpage styled "Nokia 6630 (Nokia Charlie) Detailed Tech Specs." Ex. 2006. Exhibit 2007 is a webpage styled "Nokia 6630—smartphone—GSM/UMTS Series Specs." Ex. 2007.

Petitioner contends, "Each exhibit is hearsay." Pet. Mot. Exc. 2. In particular, Petitioner argues that Patent Owner is offering each of the exhibits "for the truth of the matter asserted," namely that the particular described phone per exhibit actually captured video data in particular formats. *Id*. at 2–5. Patent Owner argues that the exhibits are not relied upon for the truth of the matter asserted, but rather for what the exhibits described to, or the effect of their descriptions on, a person having ordinary skill in the art. PO Opp. Mot. Exc. 2–6.

In rendering our decision, we did not rely on Exhibits 2003 and 2004. Accordingly, we dismiss the motion with respect to Exhibits 2003 and 2004. With respect to Exhibits 2005–2007, we agree with Patent Owner that it does not rely on those exhibits for the truth of the matter asserted. In particular, we understand Patent Owner to have offered each of Exhibits 2005–2007 for the effect that they would have had on the understanding of a person of ordinary skill in the art, rather than for the truth of the matter asserted. Here, the exhibits show what one with ordinary skill in the art would have known about technical features and developments in the pertinent art. For these reasons, we decline to exclude Exhibits 2005–2007 as impermissible hearsay. Accordingly, Petitioner's Motion to Exclude is *dismissed-in-part* and *denied-in-part*.

G. Patent Owner's Motion to Exclude

Patent Owner moves to exclude Exhibits 1033, 1036, 1037, 1043–1045, and 1047–1050. The exhibits Patent Owner seeks to exclude were filed by Petitioner in connection with its Reply. Reply iv–v. We find it unnecessary to consider the specific objections to the admissibility of Exhibits 1033, 1036, 1037, 1043–1045, and 1047–1050, since Petitioner has failed to show that the challenged claims are unpatentable by a preponderance of the evidence, even assuming Exhibits 1033, 1036, 1037, 1043–1045, and 1047–1050 to be admissible. Accordingly, Patent Owner's Motion to Exclude is *dismissed*.

III. CONCLUSION

Based on the evidence and arguments, Petitioner has not demonstrated by a preponderance of the evidence that any of claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 of the '506 patent are unpatentable.

IV. ORDER

It is

ORDERED that claims 1, 4–8, 11, 13–15, 23–26, 29, and 30 of U.S. Patent No. 8,601,506 B2 have not been shown to be unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude is *dismissed-in-part* and *denied-in-part*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *dismissed*; and

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

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