**IN THE UNITED STATES DISTRICT COURT**
**FOR THE NORTHERN DISTRICT OF TEXAS**
**DALLAS DIVISION**

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|---|---|---|
| **VIDSTREAM LLC,** | § | |
| | § | |
| *Plaintiff*, | § | |
| | § | |
| v. | § | **Case No. 3:16-cv-00764-N** |
| | § | |
| **TWITTER, INC.,** | § | |
| | § | |
| *Defendant*. | § | |

**SECOND AMENDED COMPLAINT**

Plaintiff, VidStream, LLC ("VidStream"), for its Second Amended Complaint for Patent Infringement against Twitter, Inc. ("Twitter" or "Defendant"), alleges the following:

**NATURE OF THE SUIT**

1.      This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code, to prevent and enjoin Defendant from infringing and profiting from, in an unlawful and unauthorized manner, U.S. Patent No. 8,464,304 (the "'304 patent") and U.S. Patent No. 8,601,506 (the "'506 patent"), pursuant to 35 U.S.C. § 271. True and correct copies of the '304 and '506 patents are attached hereto as Exhibits A and B, respectively. VidStream also seeks to recover damages, attorneys' fees, and costs.

**PARTIES**

2.      VidStream is a Texas limited liability company having its principal place of business at 3400 Carlisle Street, Suite 550, Dallas, Texas 75204. VidStream is the successor-in-interest to Youtoo Technologies, LLC ("Youtoo"), the original plaintiff in this action.

3.      In mid-2008, Youtoo inventors recognized that the intersection of broadcast

television and Social Networking was the next great horizon with respect to technology and communication. In order to meet the growing public and corporate demand for a user- and network-friendly, reliable interactive television experience, Youtoo invested millions of dollars into the creation, design, and testing of its pioneering technology.

4.      The inventors purchased two cable television networks to access the back-end infrastructure to develop the technology and to integrate it into a social network. On September 28, 2011, Youtoo announced the commercial launch of Youtoo TV and Youtoo.com, the world's first social network that was integrated into a TV network.

5.      Youtoo's inventions enable Internet users to record video in social networks or on social network mobile applications and to distribute the recorded video in the same social network, to another social network, embed it in a webpage or to make the video available to a television network for broadcast on television. Youtoo realized its mission through major licensing arrangements with mainstream networks like NBC, CBS, FOX, Univision, Telemundo, and TV Azteca, to smaller cable networks including Oxygen and Asia TV, to international networks like Rotana and CNBC Arabia. Youtoo even attracted "Survivor" and "The Voice" executive producer Mark Burnett as an owner. Network executives declared that marrying Youtoo Social Networking and the television community was "more than an opportunity to engage fans on multiple screens," rather, "[it gave] viewers a chance to take part in a national conversation around a show."

6.      Defendant Twitter is a Delaware corporation with its principal place of business at 1355 Market Street, Suite 900, San Francisco, California 94103. Twitter may be served on its registered agent CT Corporation System at 818 West Seventh Street, Suite 930, Los Angeles, CA 90017.

7.      Twitter acquired Vine in January 2013 and launched Vine as a standalone mobile device application used for recording and sharing video clips. Vine is a short-form video sharing social media service. Twitter, through its development and operation of Vine, is doing business and infringing VidStream's (formerly Youtoo's) '304 and '506 patents in Texas and elsewhere in the United States. Twitter acquired Periscope in January 2015 and launched Periscope as a standalone mobile device application used, among other things, for live video broadcasting. Periscope is a live video streaming and sharing service. Twitter, through its development and operation of Periscope, and through operation of Periscope and Twitter (with Periscope integration), is doing business and infringing VidStream's '304 and '506 patents in Texas and elsewhere in the United States.

## JURISDICTION AND VENUE

8.      VidStream's claims for patent infringement against Twitter arise under the patent laws of the United States, including 35 U.S.C. §§ 271 and 281. Consequently, this Court has original subject matter jurisdiction over this suit under 28 U.S.C. §§ 1331 and 1338.

9.      Twitter is an internet-based service that is used widely throughout the United States. Twitter is subject to both the specific and general personal jurisdiction of this Court because, among other things, it has established continuous and systematic contacts with Texas and in this judicial district, including by conducting business in the Northern District of Texas and the State of Texas; it has committed acts of patent infringement within Texas and this judicial district giving rise to this action; and it has minimum contacts with the forum such that the exercise of jurisdiction over it would not offend traditional notions of fair play and substantial justice.

10.     Twitter has established distribution networks placing media content creation products that are covered by claims of the '304 and '506 patents into the stream of commerce

such that those products flow into Texas and this district.

11.     Twitter has also committed acts of patent infringement and/or contributed to others' acts of patent infringement within this district.

12.     Venue is proper in this judicial district under 28 U.S.C. §§ 1391 and/or 1400(b).

### PRIOR ART AND GENERAL TECHNOLOGY BACKGROUND

13.     Prior to the inventions of the '304 and '506 patents, individuals could record video content, in the form of a file, on their local device and then upload the video content file(s) to distribution sites like YouTube over the Internet or other data networks.  Such content is referred to as "user-generated" content.  Individuals could capture user-generated content files on a wide variety of user devices, such as mobile phones having integrated digital cameras or digital cameras connected to personal computers running software capable of capturing and encoding video data to create the video files.  Individuals could then upload such video files to video sharing sites such as YouTube, where the video in the files could be viewed by other users.

14.     A video file typically includes at least a file container (*e.g.*, .mpg), video content (the video data itself), and identifying data specifying the encoding format of the video content in the file container (*e.g.*, MPEG-4, H.264).  Video data encoding (and decoding) are performed by so-called CODECs (COder/DECoder). Different types of user devices may support different CODECs that support different encoding and compression/decompression formats and file container types.  Encoding parameters (*e.g.*, video resolution, video frame rate) for video content may be selected based on a range of conditions, *e.g.*, the user's connection speed or the nature of the content being recorded.

15.     Video files uploaded to video sharing sites may arrive in myriad formats that generally need to be converted into one or more other formats, a process known as

transcoding, for the video content to be made available for distribution.  One reason for this is that different types of user devices may support video playback of content having only certain video data encoding or file container types.  Another reason is that different users may have different Internet connection speeds, so users having a low connection speed may require access to a format that is encoded at a reduced resolution or framerate as compared to users having a higher connection speed that supports a higher frame rate.

## IMPROVEMENTS AND PROBLEMS SOLVED BY THE PATENTED INVENTIONS

16.     The inventors of the '304 and '506 patents ("Youtoo Inventors") developed a system that facilitates rapidly creating and distributing user generated video content over a variety of networks that may include, for example, social media platforms accessible via the Internet or smart phone applications and traditional or over the top television networks.

17.     In developing this technology, the Youtoo Inventors recognized and overcame significant problems with conventional methods and systems for facilitating the creation and distribution of user generated video content.

18.     For example, resource burdens were imposed by both the file receipt and file preparation for subsequent distribution.  Specifically, the wide variety of user device types and related software for capturing, encoding, and creating containers for video content meant that files were uploaded in a multitude of different formats, and once uploaded, there may be file type restrictions associated with desired destination(s) for subsequent distribution.  For example, user-generated video files intended for distribution on a social media network may need to satisfy certain parameters so the files have a quality level appropriate for transcoding into the one or more video file formats required for distribution over one or more web, mobile, social media, or television platforms.  Significant server resources were required to

identify and to transcode uploaded video files from this large number of potential formats to a common or desired format before the received video could be evaluated for potential distribution or further transcoded into one or more video file formats appropriate for the intended destination(s).

19.     As another example, video files may also need to be reviewed or filtered to identify and to exclude potentially-inappropriate content (*e.g.*, body parts, hate speech or other language, copyrighted material).  Uploaded user-generated video files may thus require transcoding to a video or audio format that will permit content-quality level assessment, including some level of filtering, before it is determined whether the user-generated video file is even appropriate for distribution (whereupon further transcoding may be required for distribution).  This initial identification and transcoding from a multitude of potential file formats to a format that will permit evaluation and filtering—even for video files that ultimately fail to meet the necessary criteria for distribution—imposes an additional, significant computing cost on the server system that receives the uploaded user-generated video files (as well as human resource costs).

20.     These problems are compounded where the user-generated video content is intended for distribution in a system with highly-restrictive file format limits, as might exist, for example, in over the top, cable, or broadcast television environments.  For example, an advertising or promotional slot in a linear television program may be restricted to exactly 15 or exactly 30 seconds, must contain a specific number of frames, and must be encoded at a specific frame rate and resolution in accordance with a specific CODEC specification.  Any user-generated video that deviates from these parameters is generally not usable in such an advertising slot, so user-generated content received in a format that is incapable of being

transcoded into a broadcast-television-compatible format or that, if so transcoded, does not have the precise number of required frames, is not usable.  Server system resources expended in transcoding or attempting to transcode such user-generated content are wasted. Alternatively, server system resources are required to edit/transcode such files to the proper, acceptable form for the highly-restrictive destination system.

      21.     The Youtoo Inventors recognized and solved these and other problems by inventing a system architecture that may include any number of devices (e.g., user devices, computers, networks, *etc*.) and that provides for more efficient and rapid transcoding and distribution of user-generated video content received by the system than was previously possible.
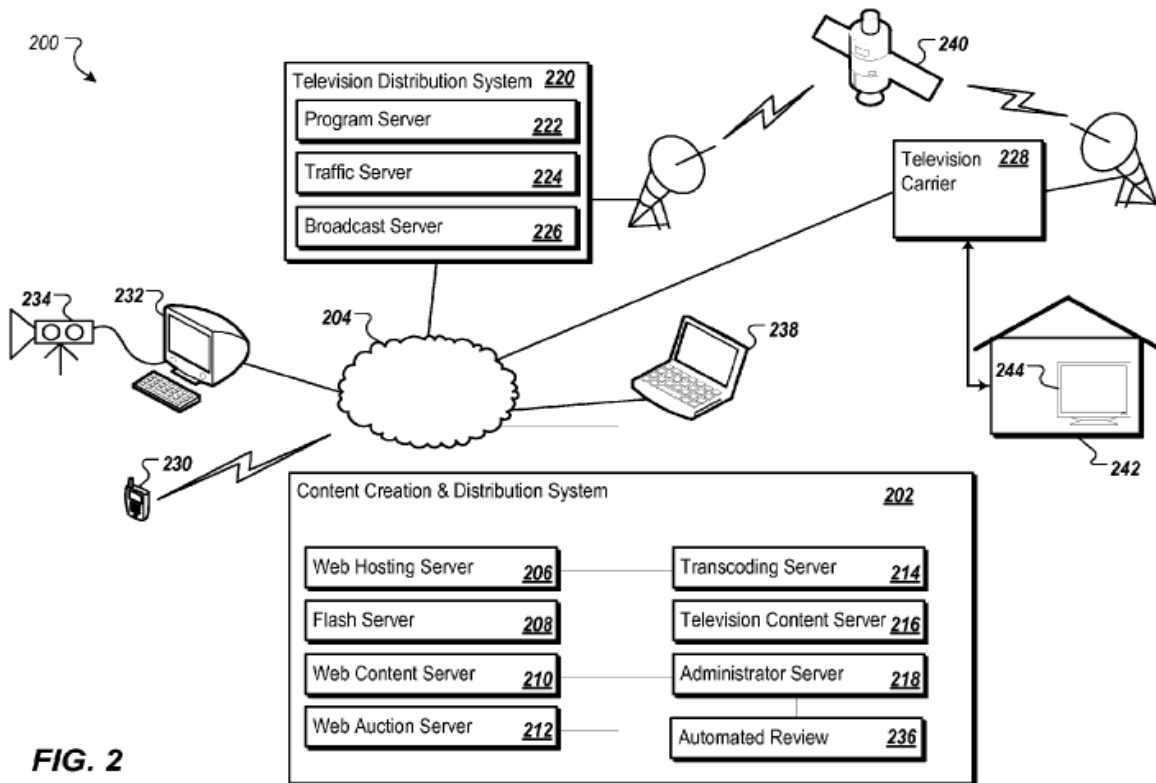


FIG. 2

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22.      Aspects of the '304 and '506 patents' claimed inventions are illustrated in the '304 patent, Figure 2, shown above. Figure 2 depicts a Content Creation and Distribution System 202 ("CCDS") that may comprise a number of servers (206, 208, 210, 214, 216, 218, and 236) and that is connected to one or more communications networks 204.  Exhibit A, '304 patent at 14:1-5.  The CCDS may communicate 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 4:18-22.  The CCDS may receive user-generated video content from a user having a mobile device 230 (*e.g.*, a smart phone, tablet, *etc.*) capable of capturing SD or HD video or a computing device 232 having a video camera 234 (*e.g.*, built-in or aftermarket peripheral camera attached via wired or wireless connection).  *Id.* at 14:30-36.  Servers associated with the CCDS can transcode the received video into one or more alternative formats.  *Id.* at 15:23-28.  Other servers associated with the CCDS can organize video content for review and perform automatic review of video content for inappropriate material.  *Id.* at 15:57-16:9.  User-generated video content received by the CCDS can also be transcoded into one or more formats for use by one or more destination media outlets, including, *e.g.*, television distribution systems, Internet broadcasts, Internet Video blogs, and other types of Internet distribution. *Id.* at 10:45-55.

23.      A key inventive concept in all independent claims of the '304 and '506 patents is that a server system provides instructions to the user device that cause the video content to be captured in accordance with predetermined constraints.  For example, in one embodiment, the server system provides a thin-client interface to the user computing device whereby instructions are executed partially on the server system and partially on the user computing

device.  *Id.* at 10:25-37; 12:12-18, 49-62.  In another embodiment, the server provides a fat

client application download to the user computing device (*e.g.*, mobile application software),

which can be executed on the user computing device to capture video content and record such

content to storage locations of the CCDS. *Id.* at 12:19-25, 45-49.

24.     The instructions provided by the server system to the user computing device

via a thin client interface or an installed fat client application cause the user computing device

to capture video content according to predetermined constraints.  By constraining particular

formatting requirements for the video files captured via the user computing device, the video

can be received by the CCDS and then rapidly transcoded without the need to interpret an

unconstrained range of received data formats or to modify the transcoder accordingly.  *Id.* at

13:55-58.  This dramatically increases the speed and efficiency with which the computer

system can transcode and distribute user-generated video content.

25.     For example, in certain embodiments, when the content creation subsystem of

the invention is implemented "as a thin client application or a specialized application installed

on a user device, the application can enforce predetermined constraints on the captured

video." *Id.* at 10:56-59. "Such constraints can help ensure that the video is in condition to be

rapidly transcoded for insertion into a linear programming time slot" by, for example,

ensuring that the application "encode the video and accompanying audio data at a sufficient

bit rate and resolution, among other things, to ensure that the video file can be transcoded to

produce video of sufficient quality to be televised and/or to be distributed on the Internet (i.e.,

in accordance with minimum quality requirements of the television producer or other

distributor.)"  *Id.* at 10:59-11:1. In such embodiments, this ensures server system resources

are not wasted in attempting to transcode or transcoding some received user-generated video

content that will not, once transcoded, meet the necessary quality parameters for distribution. "By ensuring that the crowd-sourced video or other user-generated content complies with predetermined parameters through the application of the content creation subsystem, it is possible to transcode the video or other content and perform a review and/or selection so that the video or other content can be inserted within the same television show in which the request to submit the video or other content is made." *Id.* at 11:1-8. Such rapid insertion of user-generated video content into a linear programming slot was not feasible prior to the invention using conventional technology at that time.

26. In addition, in certain embodiments, encoding user-generated video with pre-determined constraints also ensures the video file is ready for transcoding by the CCDS using a predetermined transcoder and predetermined transcoding parameters (or a limited set of predetermined transcoders and/or transcoding parameters), which increases transcoding efficiency. "In other words, the incoming video file can be transcoded using a predetermined transcoding process without having to interpret the data, develop a transcoding process, edit the video, and/or perform manual processing…Such techniques allow received video to be quickly transcoded and can facilitate incorporating captured video into linear programming within minutes of capture." *Id.* at 11:13-19.

27. In addition to server constraints on user-generated video quality, the '304 and '506 patents teach, in certain embodiments, the use of predetermined restrictions on the length of a user-generated video that may be captured for submission. "By accessing the thin client through that web page [containing a request for video submissions] and/or by delivering parameters to a locally installed application on the user device, a video length restriction can be enforced (i.e., the user can be prevented from capturing or submitting videos that do not

comply with the length restrictions)…[b]y enforcing length restrictions, the need to edit the video can be avoided, which can also expedite the process of inserting video into a linear programming sequence." *Id.* at 11:26-30, 42-45.

28.    Thus, in various embodiments, this key inventive concept—that instructions provided by the server system to the client computing device impose predetermined constraints on the video capture process—improves the computer system's computational functionality by increasing the speed, efficiency, and viability with which video content can be transcoded at the server system as well as reducing or eliminating wasteful transcoding or attempted transcoding of user-generated video files that do not satisfy necessary parameters for the transcoded video to have a sufficient quality level for distribution on an intended network or networks.   In certain embodiments, the increase in speed and efficiency with which video content can be transcoded at the server system also enables more rapid and efficient distribution as well as lower-cost distribution of content that is viewable across multiple networks (e.g., mobile, social, web, and television) as well as across multiple devices (e.g., iOS devices, android devices, PC computers, Macintosh computers).

29.    In addition, in certain embodiments, this key inventive concept—by enabling the server system to more efficiently transcode received video content into broadcast quality video files and/or into video files appropriate for Internet distribution without the need for manual editing—also solved an existing problem in the prior art where such video files were intended for incorporation in other programming. "This feature eliminates the need of a professional production team to transcode disparate formats of user-generated video files before the team can compile and review the files for inclusion in live or pre-recorded linear television or other programming. This aspect not only make [sic] production less expensive

for television or movie production teams, it makes…the process simpler, and therefore more likely that a production team will want to include crowd-sourced content in their programming (e.g., television or movie programming)." *Id.* at 18:29-38.

30.     This server-provided constraint inventive concept is incorporated in each and every independent claim in the '304 patent.  For example, independent claim 1 of the '304 patent recites:

> 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 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 frame rate defined by the instructions***;
>     automatically transcoding the video data, using a server included in the server system, into at least one different format based on at least one of user credentials associated with a user of the client computing device or attributes associated with the video data, wherein at least one format of the transcoded video data defines a video file in a format appropriate for inclusion in a linear television programming broadcast; and
>     uploading the transcoded video data to a distribution server for distribution.

*Id.* at 27:57-28:10 (emphasis added).

31.     Relatedly, independent claims 17 and 22 in the '304 patent each recite, in relevant part, "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 that include a frame rate defined by the instructions…."  *Id.* at 29:27-31; 30:2-6.  Similarly, independent claim 26 recites, in relevant part, "one or more servers operable to interact with the user device and to: provide instructions for use by the user device for capturing video data in accordance with predetermined constraints, wherein the predetermined constraints include a frame rate defined by the instructions…."  *Id.* at

30:41-46.

32.     This key inventive concept is also incorporated in each and every independent

claim in the '506 patent.  For example, independent claim 1 of the '506 patent recites:

> 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
>          coupled 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.

Ex. B, '506 patent at 28:2-7 (emphasis added).

33.     Relatedly, independent claim 16 in the '506 patent recites, in relevant part,

"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 that include a video length defined by the instructions, with the video length

centrally predefined at the server system for a plurality of users…."  *Id.* at 29:25-31.

Similarly, independent claim 23 recites, in relevant part, "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 that include a

video length defined by the instructions, wherein the video length is centrally defined at the

server system for a plurality of users…."  *Id.* at 30:8-14.  Finally, independent claim 26

recites, in relevant part, "one or more servers operable to interact with the plurality of user

devices and to: provide instructions for use by the user devices for capturing video data in accordance with predetermined constraints, wherein the predetermined constraints include a video length defined by the instructions, wherein the video length is centrally defined at the one or more servers for the plurality of user devices…." *Id.* at 30:41-48.

34.     This inventive concept, when considered individually as well as when considered as an ordered combination with the other elements of each independent claim in the '304 and '506 patents, involves more than performance of well-understood, routine, or conventional activities previously known to the industry.  Indeed, this inventive concept rises much farther—to the level of patentability—as further detailed below.

**TWITTER'S IPR CHALLENGE TO THE '304 PATENT FAILED, AND THE PTAB FOUND ALL CHALLENGED CLAIMS PATENTABLE**

35.     On March 24, 2017, Twitter filed an ultimately unsuccessful petition before the United States Patent Trial and Appeal Board ("PTAB") seeking *inter partes* review ("IPR") of the '304 patent (the "'304 IPR").  Twitter's '304 IPR, Case IPR2017-01131, challenged the patentability of claims 1, 4, 5, 8, 9, 11-17, 19-26, and 28-30 of the '304 patent.

36.     Twitter asserted in the '304 IPR that four of the challenged claims—claims 1, 4, 5, and 9—were unpatentable as anticipated by a publication by 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, 607400, 2006 ("Lahti").  Lahti describes a video management system including a video server and a mobile camera-phone application called MobiCon.  MobiCon allows a user to capture videos, annotate them, specify digital rights management settings, upload videos over a cellular network, and share the videos with others.  In addition, Twitter's '304 IPR alleged that all challenged claims were unpatentable as obvious in view of various combinations of Lahti

with five other alleged prior art publications.

37.     On January 23, 2019, the PTAB issued its Final Written Decision on the '304 IPR, finding Twitter had failed to demonstrate by a preponderance of the evidence that any of the challenged claims were unpatentable.   A true and correct copy of the PTAB's Final Written Decision on the '304 IPR is attached as Exhibit C.

38.     In particular, the PTAB found that the combination of references asserted by Twitter failed to disclose a particular concept recited in each independent claim of the '304 patent:  that the server system provides instructions to the client computing device that causes video data to be captured in accordance with predetermined constraints that include a frame rate.   '304 Final Written Decision at 13-15, 25, 27-29.   Specifically, the PTAB found Twitter's proffered references failed to disclose the following limitations from the independent claims:

- Claim 1:  "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 frame rate defined by the instructions." *Id.* at 13, 16, and 25.

- Claim 17:  "instructions cause the content to be captured in accordance with predetermined constraints that include a frame rate." *Id.* at 27-28.

- Claim 22:  "instructions cause the content to be captured in accordance with predetermined constraints that include a frame rate." *Id.* at 28-29.

- Claim 26:  one or more servers. . . to: provide instructions for use by the user device for capturing video data in accordance with predetermined constraints, wherein the predetermined constraints include a frame rate defined by the

instructions." *Id.* at 13, 16, and 25.

39.     The PTAB's '304 IPR findings demonstrate Twitter failed to show this key inventive concept—provision of instructions by the server system to impose predetermined constraints on the video capture process—was unpatentable. This key inventive concept, as recited in the above-quoted claim elements, is not well-understood, routine, or conventional to a skilled artisan in the relevant field. Indeed, far from being "conventional," the PTAB found this inventive concept is neither disclosed, nor obvious in view of, the very references selected by Twitter for assertion in the '304 IPR.

## TWITTER'S IPR CHALLENGE TO THE '506 PATENT FAILED, AND THE PTAB FOUND ALL CHALLENGED CLAIMS PATENTABLE

40.     On March 24, 2017, Twitter also filed an ultimately unsuccessful petition before the PTAB seeking IPR of the '506 patent (the "'506 IPR"). Twitter's '506 IPR, Case IPR2017-01133, challenged the patentability of claims 1, 4-8, 11, 13-15, 23-26, 29, and 30 of the '506 patent.

41.     Twitter asserted in the '506 IPR that all challenged claims were unpatentable as obvious in view of Lahti combined with two other references, and separately obvious in view of Lahti combined with a different set of three references.

42.     On January 23, 2019, the PTAB issued its Final Written Decision on the '506 IPR, finding Twitter had failed to demonstrate by a preponderance of the evidence that any of the challenged claims were unpatentable. A true and correct copy of the PTAB's Final Written Decision on the '506 IPR is attached as Exhibit D.

43.     In particular, the PTAB found that neither combination of references asserted by Twitter disclosed a particular concept recited in each challenged independent claim of the '506 patent: provision of instructions by the server system that cause the video date to be

captured in accordance with predetermined constraints. '506 Final Written Decision at 13-14.

Specifically, the PTAB Twitter's proffered references failed to disclose the following

limitations from the challenged independent claims:

- Claim 1: "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." *Id.* at 13-14 and 26-27.

- Claim 23: "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." *Id.*

- Claim 26: "one or more servers . . . to: provide instructions for use by the user
  devices for capturing video data in accordance with predetermined
  constraints." *Id.*

44.     The PTAB's '506 IPR findings demonstrate Twitter failed to show this key

inventive concept—provision of instructions by the server system to impose predetermined

constraints on the video capture process—was unpatentable.  This key inventive concept, as

recited in the above-quoted claim elements, is not well-understood, routine, or conventional to

a skilled artisan in the relevant field.  Indeed, as with Twitter's challenge to the '304 patent,

this inventive concept is not even disclosed in the very references selected by Twitter for

assertion in the '506 IPR.

## ALL METHODS OF CAPTURING, UPLOADING, AND DISTRIBUTING VIDEO CONTENT ARE NOT PREEMPTED BY THE '304 AND '506 PATENTS

45.     The '304 and '506 patent claims do not preempt all methods and systems for

capturing, uploading, and distributing video.  Prior-art architectures for capturing user-

generated video content, uploading, and distributing such content are not covered by the '304

and '506 patents where, for example, they lack the claimed key inventive concepts.

46.     For example, the Lahti prior art system includes a video management system having a video server and a mobile camera-phone application called MobiCon. '304 Final Written Decision at 10. MobiCon allows a user to capture videos, annotate them, specify digital rights management settings, upload videos over a cellular network, and share the videos with others. *Id.* 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.* The PTAB found that the Lahti system did not disclose a server providing instructions to the client device that would provide predetermined constraints on the capture of video content. '304 Final Written Decision at 13, 16, 25, 27-29; '506 Final Written Decision at 13-14 and 26-27. Thus, Lahti is but one example of a video creation, uploading, and sharing system that is not covered by the claims of the '304 or '506 patents.

## TWITTER'S KNOWLEDGE OF THE PATENTS

47.     Twitter has been aware of VidStream's '304 and '506 patents since at least July 5, 2013, when its predecessor-in-interest, Youtoo, advised the then CEO of Twitter, Dick Costolo, of its concern that Twitter was practicing claims of Youtoo's patents, yet preferred to discuss a possible business relationship rather than engage in litigation. Youtoo subsequently entered into discussions with chief executives at Twitter, including Fred Graver, Adam Bain, Anthony Noto, Mike Rusignola and others, regarding a potential partnership under the company's branded "Twitter Official Partner Program" (the "Partner Program").

48.     The parties engaged in serious discussions beginning with senior Twitter executive Fred Graver regarding the Partner Program from August 8, 2013 through August 22,

2015. During an initial in-person meeting on August 8, 2013, Mr. Graver advised Youtoo executives that the way to monetize the patents, in lieu of litigation, would be to become a "Twitter Official Partner" whereby Twitter would refer paying clients to Youtoo, similar to Twitter data resellers, including Mass Relevance, to license the Youtoo software. On August 17, 2013, Mr. Graver introduced Mike Rusignola to Youtoo executives to begin the process of becoming a Twitter Official Partner. During the partnership talks, which were subject to a non-disclosure agreement, Youtoo was required to show Twitter how to practice the inventions covered by the '304 and '506 patents.

49.     On October 16, 2013, Youtoo provided Twitter access to a digital "sandbox" whereby Twitter could evaluate Youtoo software. During the course of partnership talks, Mr. Rusignola declared that "nobody else has a producer-user interface that facilitates multi-user content like Youtoo." He then asked Youtoo to begin developing software for the Twitter "video card" and Amplify products. Youtoo complied but was never compensated for the development work. On November 24, 2013, Mr. Graver stated, "This [Youtoo] is the most powerful technology we've seen to date." Then, on January 8, 2014, Mr. Graver further stated that Twitter liked Youtoo's technology because it was "camera ready" and no one else's was. Thereafter, Youtoo was passed off to at least four different senior Twitter executives during its process to become a Twitter Official Partner, dragging out the process for nearly two years.

50.     In the meantime, Twitter implemented – copied – the very technology in Vine which Youtoo demonstrated to Twitter in 2013, thus allowing Vine videos to be displayed on television and elsewhere.

51.     After further efforts to enter into licensing or partnership arrangements with Twitter failed, Youtoo told Twitter CFO, Anthony Noto that if Twitter continued its

infringing activities, a lawsuit would be inevitable. Mr. Noto then conceded that Twitter "would have a problem" if Youtoo were to file suit.

## PATENT INFRINGEMENT

## FIRST CLAIM FOR INFRINGEMENT

### (Infringement of U.S. Patent No. 8,464,304)

52.     VidStream incorporates by reference Paragraphs 1 - 51 of this Complaint as if set forth below.

53.     The '304 patent, entitled "Content Creation and Distribution System," was duly and legally issued on June 11, 2013, naming Mark A. Harwell, Christopher W. Wyatt, and Ryland M. Reed as inventors.

54.     VidStream owns all right, title and interest in and has standing to sue for infringement of the '304 patent, including the right to sue and recover for all past, current, and future infringement.

55.     The '304 patent is valid and enforceable.

56.     The '304 patent is directed to patentable subject matter.

57.     Twitter has infringed and is infringing the '304 patent through its operation of its video creation and distribution platform Vine and all similar, derived, or related platforms for video creation and distribution (collectively, "Vine"). Vine consists of an application, versions of which run on Android, Windows, or iOS client devices, and a server system, that together allow users to record video content in six-second segments for transmission to the server system for distribution. The Vine server system transcodes the recordings as necessary for distribution. The Vine recordings may ultimately be incorporated into or otherwise distributed via, *e.g.*, social media platforms, webpages, and television broadcasts.  Twitter has been infringing and continues to infringe the '304 patent, literally and under the doctrine of

equivalents, including, but not limited to, claims 1, 4, 5, 8, 9, 11-16, 22, 24-26, and 28-30 (hereinafter the "'304 Vine Asserted Claims"), under 35 U.S.C. § 271(a) through its operation, making, use, sale, and offering for sale of its video creation and distribution system Vine, and under 25 U.S.C. § 271(b) through its inducement of others to operate and use Vine.

58.     Twitter also has infringed, and continues to directly infringe and/or indirectly infringe by inducement and/or contributory infringement, literally and/or under the doctrine of equivalents, the '304 patent under 35 U.S.C. § 271(a) and (b), through its operation, making, use, sale, and offering for sale of its video sharing products Periscope and Twitter (with Periscope integration, released by Twitter on or about December 14, 2016), along with the server systems enabling and supporting Periscope and Twitter, and its inducement of others to use the Periscope and Twitter applications and services to infringe the '304 patent while it knew or should have known that its actions would cause direct infringement.

59.     The accused video sharing products and services that infringe one or more of claims of the '304 patent, including without limitation claims 1, 4, 7-10, 15-17, 19-26, and 28, include, without limitation, at least the following: (i) the Periscope application for iOS and Android devices, and any other Periscope-related application or similar product in which functionality can be invoked to allow video capture and transmission to a server, sharing, or broadcasting from a user device, and the Periscope platform server infrastructure and APIs related to video capture from user devices, sharing, or broadcasting from a user device (collectively, the "Accused Periscope Instrumentalities"); and (ii) the Twitter application (with Periscope integration, released by Twitter on or about December 14, 2016) for iOS and Android devices, and any other Twitter-related application or similar product in which functionality can be invoked to allow video capture, sharing, or broadcasting from a user

device, and the Twitter platform server infrastructure and APIs related to video broadcasting

from a user device (collectively, the "Accused Twitter Instrumentalities," and together with

the Accused Periscope Instrumentalities, the "Accused Instrumentalities"). Further discovery

may reveal additional infringing applications, services, and/or functionality.

60.      The Accused Instrumentalities infringe one or more claims of the '304 patent,

including, for example, claim 1 of the '304 patent.

61.      Claim 1 of the '304 patent recites:

> 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 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 frame rate defined by the instructions;
>>
>> automatically transcoding the video data, using a server included in the server system, into at least one different format based on at least one of user credentials associated with a user of the client computing device or attributes associated with the video data, wherein at least one format of the transcoded video data defines a video file in a format appropriate for inclusion in a linear television programming broadcast; and
>
> uploading the transcoded video data to a distribution server for distribution.

62.      To the extent the preamble of claim 1 is considered a limitation, the computing

devices, including without limitation client computing devices on which the Periscope or

Twitter applications are used and the Periscope and Twitter platform infrastructure servers,

comprise a data processing apparatus that performs the claimed method.

63.      The Accused Instrumentalities meet the first element of claim 1 of the '304

patent that recites "receiving video data from a client computing device at a server system,

wherein the video data is captured using a camera 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 frame rate defined by the instructions."  A content capture server with respect to each of the Accused Instrumentalities receives video data from a client computing device, for example, an iOS or Android mobile device such as a smartphone running the Periscope application (Accused Periscope Instrumentalities) or Twitter application (Accused Twitter Instrumentalities).  The Periscope and Twitter applications comprise instructions that are provided to the client computing device by the server system, and video data is captured using a camera connected to the client computing device, *e.g.*, an internal smartphone camera or external camera connected to the smartphone, in accordance with instructions executed during operation of the Periscope or Twitter applications.  Video data is captured, for example, using the Periscope application on an iOS device by creating a Periscope account and logging in, tapping the "broadcast" icon in the bottom center of the screen, and tapping the "Go LIVE" button.  Similarly, video is captured, for example, using the Twitter application on an iOS device by tapping the camera icon from the composer, tapping the live mode at the bottom selector, and tapping "Go live."  *See, e.g.*, https://help.twitter.com/en/using-twitter/twitter-live.  On information and belief, the instructions comprising the Periscope and Twitter applications cause video data to be captured in accordance with predetermined constraints that include a frame rate defined by the instructions.

64.     The Accused Instrumentalities meet the second element of claim 1 of the '304

patent that recites "automatically transcoding the video data, using a server included in the server system, into at least one different format based on at least one of user credentials associated with a user of the client computing device or attributes associated with the video data, wherein at least one format of the transcoded video data defines a video file in a format appropriate for inclusion in a linear television programming broadcast."  On information and belief, one or more of the content capture servers, content storage servers, and/or content delivery network servers comprising part of the server system infrastructure for the Accused Instrumentalities automatically transcodes the video data into at least one different format, which is appropriate for inclusion in a linear television programming broadcast, based on at least one of the user credentials associated with a user of the client computing device or attributes associated with the video data.

65.     The Accused Instrumentalities meet the third element of claim 1 of the '304 patent that recites "uploading the transcoded video data to a distribution server for distribution."  The transcoded video data is uploaded to one or more distribution servers, *e.g.*, one or more servers in the content delivery network(s) used to distribute video via the Twitter and/or Periscope platforms.

66.     Twitter commenced and has continued its infringing activities, despite knowing that there was at least an objectively high likelihood that its actions constituted infringement of the '304 patent. Twitter has also continued its infringing activities after the Patent Trial and Appeal Board's Final Written Decision finding Twitter had failed to demonstrate that any of the challenged claims in the '304 patent were unpatentable.  This case is, therefore, beyond the norm and, hence, subject to discretionary enhancement of damages under 35 U.S.C. § 284 and attorneys' fees and costs under 35 U.S.C. § 285.

67.     VidStream has been and continues to be damaged by Twitter's actions.

## SECOND CLAIM FOR INFRINGEMENT

(Infringement of U.S. Patent No. 8,601,506)

68.     VidStream incorporates by reference Paragraphs 1 - 67 of this Complaint as if set forth below.

69.     VidStream owns all right, title and interest in and has standing to sue for infringement of the '506 patent, entitled "Content Creation and Distribution System," which issued on December 3, 2013.

70.     Twitter has infringed and is infringing the '506 patent through its operation of its video creation and distribution platform Vine and all similar, derived, or related platforms for video creation and distribution (collectively, "Vine"). Vine consists of an application, versions of which run on Android, Windows, or iOS client devices, and a server system, that together allow users to record video content in six-second segments for transmission to the server system for distribution. The Vine server system transcodes the recordings as necessary for distribution. The Vine recordings may ultimately be incorporated into or otherwise distributed via, including but not limited to, social media platforms, webpages, and television broadcasts. Twitter has infringed the '506 patent, literally and under the doctrine of equivalents, including, but not limited to, claims 1, 4-8, 11, 13-15, 23-26, and 29-30, under 35 U.S.C. § 271(a) through its operation, making, use, sale, and offering for sale of its video creation and distribution system Vine, and under 25 U.S.C. § 271(b) through its inducement of others to operate and use Vine.

71.     Twitter commenced and continued its infringing activities, despite knowing that there was at least an objectively high likelihood that its actions constituted infringement of the '506 patent. This case is, therefore, beyond the norm and, hence, subject to

discretionary enhancement of damages under 35 U.S.C. § 284 and attorneys' fees and costs under 35 U.S.C. § 285.

72.     VidStream has been damaged by Twitter's actions.

## PRAYER FOR RELIEF

WHEREFORE, VidStream prays for the following relief:

(a)     A judgment finding that Twitter has infringed the '304 and '506 patents under 35 U.S.C. § 271(a), (b) and (c);

(b)     A judgment that the '304 and '506 patents are valid and enforceable;

(c)     A permanent injunction enjoining Twitter, its agents, officers, assigns and others acting in concert with them, from infringing, inducing infringement of and/or contributing to infringement of the '304 and '506 patents;

(d)     An award of damages adequate to compensate VidStream for the infringement of the'304 and '506 patents that has occurred;

(e)     An award of pre-judgment interest and post-judgment interest on the damages awarded;

(f)     A judgment that VidStream is entitled to discretionary enhancement of its damages and other relief provided by 35 U.S.C. § 284;

(g)     A determination that this is an exceptional case and an award of VidStream's attorneys' fees pursuant to 35 U.S.C. § 285 and any other applicable statute or law, and an award to VidStream of its costs; and,

(h)     Such other further relief as the Court deems reasonable.

## JURY DEMAND

Plaintiff demands a trial by jury on all issues triable to a jury.

DATED: April 22, 2021      Respectfully Submitted,


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## CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on this 22$^{nd}$ day of April, 2021, a true and correct copy of the foregoing document was sent via ECF to counsel for Twitter as follows:

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