

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA  
RICHMOND DIVISION**

<p>DIVX, LLC,</p> <p style="text-align: center;">Plaintiff,</p> <p style="text-align: center;">v.</p> <p>AMAZON.COM, INC., and AMAZON WEB SERVICES, INC.,</p> <p style="text-align: center;">Defendants.</p>	<p>Civil Action No. _____</p> <p style="text-align: center;"><b>JURY TRIAL DEMANDED</b></p>
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**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff DivX, LLC (“DivX”) alleges its Complaint for patent infringement against Defendants Amazon.com, Inc. (“Amazon”) and Amazon Web Services, Inc. (“AWS”) (collectively, “Defendants”) as follows:

**NATURE OF THE ACTION**

1. This is an action for patent infringement under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.* DivX alleges that Defendants have infringed and/or continue to infringe, directly and/or indirectly, the following DivX patents: U.S. Patent Nos. 10,412,141 (“141 patent”), 10,715,806 (“806 patent”), 9,955,195 (“195 patent”), 11,611,785 (“785 patent”), 10,542,303 (“303 patent”), and 11,245,938 (“938 patent”), (collectively, the “Asserted Patents”), copies of which are attached hereto as Exhibits 1-6.
2. Plaintiff DivX, LLC (“Plaintiff” or “DivX”) is a U.S. company founded in 2000.
3. Since its inception, DivX has set the bar for high-quality digital video. DivX was

one of the first companies to enable successful delivery of high-quality digital video over the internet. For more than 20 years, DivX has been developing innovative technologies to deliver better digital entertainment experiences for consumers—making internet video high-quality, secure, easy, and enjoyable for consumers to watch on any device.

4. Continuing to this day, DivX’s patented technology helps people around the world enjoy digital media on their own terms. Today, consumers take for granted that high-quality video from the internet is readily available on any device at the touch of a button. But by the time DivX’s engineers accomplished this feat in the mid to late aughts, they had to overcome significant technical obstacles to do so. Through those efforts, DivX engineers invented foundational technologies that made high-quality internet video possible long before many modern “smart” devices existed.

5. For example, DivX’s fundamental advances in video compression and streaming technology have made it possible to transmit large video files efficiently over the internet. DivX also created technology that allows those video files to be streamed to and played on a wide variety of consumer electronics devices. DivX further developed encryption technology (e.g., Digital Rights Management technology) for video files, to protect valuable video content so that content producers would be comfortable making their original works available on the internet. DivX’s fundamental advances include innovations in video data encoding and encryption, adaptive bitrate streaming, decoding and playback of encrypted bitstreams, and enabling seeking functionality during streaming playback. DivX’s innovation paved the way and provided a roadmap for today’s proliferation of internet video streaming on consumer devices.

6. In 2001, when DivX took the first steps toward creating an internet video platform, content owners such as Hollywood studios would not release their premium video

content on an internet platform because they feared that piracy and losing control of their content would severely diminish the value of their rights.

7. From 2000 to 2005, DivX met with content owners such as Disney, Warner Bros., Sony, and Paramount Pictures about technical solutions to overcome their concerns and to implement the strict security requirements that the owners demanded. During the same period, DivX also met with major consumer electronics manufacturers about overcoming challenges to implementing DRM features in their devices. DivX recognized at the time that existing technologies would not meet the content protection concerns of studios, and it had to innovate to serve the market need.

8. DivX engineers worked to build a DRM system that would solve these longstanding technical problems, and as a result of DivX's research and development efforts, DivX DRM became one of the first DRM systems accepted by major Hollywood Studios.

9. In 2001, DivX completed a new implementation of the MPEG-4 video standard that aimed to satisfy consumer demand for accessible, high-quality digital video content—DivX Codec 4.0. Over the next decade, DivX developed and released numerous new and improved versions of the DivX Codec. DivX bundled the DivX Codec with other features for video encoding, decoding, and playback and packaged it as the “DivX Software.”

10. In addition to providing the DivX Codec, the DivX Software functioned like a master translator for video files, allowing variations in codecs, containers, and playback across different file types in different devices. It allowed consumers to compress, decode, and play back digital video using a single program that could allow users to access and use the variety of technologies available on the market, all in one place.

11. DivX continually evolved and improved its DivX Codec and DivX Software and

consumer access to and use of digital video over the internet became more widespread as computing power and network bandwidth increased. These developments led to widespread adoption of the DivX Software, a large base of DivX users, and the creation of billions of DivX video files.

12. In 2001, DivX launched Open Video System (“OVS”)—an internet-based video-on-demand system that built upon the quality and performance of DivX Software. OVS launched at a time when broadband internet access was not yet ubiquitous and in a business environment where Hollywood studios were not yet ready to embrace digital distribution. After the launch of OVS, DivX engineers continued to invest in technical improvements and innovations for the platform, and their innovations expanded the platform to enable playback on a wide variety of playback devices.

13. DivX’s investments in OVS produced many key innovations for delivering video over the internet including:

- a. A flexible, key-based DRM system that tied purchased video content to a viewer rather than a device, preventing unauthorized access when the device was sold or obtained by others while improving the viewer experience.
- b. A core codec that offered industry-best compression and performance, enabling full-screen, DVD-like quality that was vastly superior to the pixelated, postage-stamp size viewing experience associated with internet video at the time.
- c. A “progressive download” feature that allowed the viewer to begin watching a purchased or rented video after only a few minutes while the file continued to download in the background.

14. DivX OVS was a successful video streaming platform. Throughout the mid-

2000s, hundreds of millions of devices spanning virtually every major consumer electronics manufacturer were released supporting DivX OVS playback. Blockbuster, Netflix, Amazon, and others discussed with DivX using DivX technology to power their streaming platforms.

15. In 2006, DivX launched “Stage6”—one of the first HTTP-based websites for sharing and streaming high-resolution video. Streaming video from an HTTP-based website allows a web server to continuously send data to a viewer over a single HTTP connection that remains open. DivX Stage6 implemented DivX’s video compression, codec, and playback technology in an HTTP-based environment that allowed users to upload, share, and view larger video files than other competing platforms at that time, like YouTube.

16. DivX Stage6 was one of the earliest websites that supported sharing and streaming of high-resolution video. Even in 2007, when computing resources and network bandwidth were far more limited than today, DivX Stage6 supported streaming of 720p and 1080p high-definition video. The quality of the high-resolution video playback on Stage6 surprised reviewers, with one commenting “DivX has clearly got something right with web playback of higher-resolution video!” See Bob Crabtree, *Review: DivX Stage6 (beta) – the high def rival to YouTube*, HEXUS (May 1, 2007), <https://hexus.net/tech/reviews/software/8558-divx-stage6-beta-high-def-rivalyoutube/>. DivX Stage6 enjoyed rapid user traffic growth, and by January 2008, it had over 10,000,000 monthly views.

17. In 2011, DivX released the DivX Plus Streaming SDK, an end-to-end internet video streaming software that rivaled Blu-ray DVDs in quality and feature-set (such as user commands for seeking in the video, fast-forward, and rewind). The DivX innovations incorporated in DivX Plus Streaming include several that provide the foundation for the widespread technological success of video streaming today.

18. DivX Plus Streaming was one of the earliest secure streaming software packages that supported Dynamic Adaptive Streaming over HTTP (“DASH”). DASH standardizes certain aspects of adaptive bitrate streaming of video over the internet and has been widely adopted as a protocol used by many of today’s video streaming services. Fast start and smooth switching among video streams of different resolutions, depending on bandwidth, both improve the viewer experience during DASH. The innovations incorporated in DivX Plus Streaming improve both aspects of the streaming user experience.

19. DivX engineers’ efforts to create DivX Plus Streaming produced many innovations fundamental to today’s video streaming services, including adaptive bitrate streaming that delivered video streams configured and optimized for each specific screen size on which the user wanted to watch the video. Configuring video streams based on the characteristics of individual playback devices ensures the optimal balance of video quality and playback performance.

20. DivX continues to make investments in research and development for internet video, which have led to continued technical innovations. And DivX continues to patent its inventions. Today, DivX has a portfolio of more than 500 issued and pending patents and patent applications—with more than 400 issued patents alone.

21. Presently, DivX has two distinct areas of business: (i) distributing consumer software (e.g., the DivX Software) implementing its technologies, and (ii) licensing its software and/or patents to consumer electronics manufacturers, video streaming platforms, and supply chain manufacturers. Consumers have downloaded DivX software more than one billion times and created billions of files using DivX’s proprietary “.divx” file format. Consumer electronics companies as well as video streaming companies, including Samsung, Disney, and Element TV

Company, have licensed DivX's technologies, and are able to integrate them into millions of devices worldwide. To date, DivX has licensed at least 50% of the global Smart Television market and at least 70% of the U.S. Smart Television market.

22. Defendants (Amazon and AWS) have made substantial use of DivX's inventions, including in the Asserted Patents, throughout Amazon's video streaming ecosystem, including video encoding services (such as AWS Elemental, including but not limited to MediaConvert and MediaPackage functionalities), video streaming services (such as Amazon Prime Video), and consumer video playback devices (such as Amazon "Fire" products). Amazon and AWS occupy a significant portion of video encoding, streaming, and playback device market worldwide. Reports indicate that Amazon Prime Video has surpassed Netflix as the most popular subscription video-on-demand service in the United States. Amazon's and AWS's video encoding and transcoding services, including AWS Elemental, provide fundamental services to support Amazon Prime Video but also, according to Amazon, "industry leaders like Netflix, HBO Max, Peacock," and others. *See Direct-to-Consumer & Streaming*, Amazon Web Services, Inc., <https://aws.amazon.com/media/direct-to-consumer-d2c-streaming/> (accessed Nov. 15, 2024). Amazon's sales of Fire hardware devices for video streaming completes its end-to-end occupation of the video streaming ecosystem.

23. Amazon's success throughout the video streaming ecosystem depends on its appropriation, without permission, of DivX's foundational inventions. As shown in this Complaint, Amazon incorporates DivX's inventions throughout its encoding and transcoding services, its video streaming services, and its video playback devices. DivX had the vision and invested the effort to create the technologies that enable modern, high-quality, and efficient video streaming, and Amazon has appropriated those inventions to its own benefit.

## THE PARTIES

24. Plaintiff DivX is a Delaware limited liability company. Its principal place of business is 4350 La Jolla Village Drive, Suite 950, San Diego, California, 92122. DivX owns patents covering foundational internet video streaming technologies, including those asserted in this case.

25. DivX holds all substantial rights and interest in the Asserted Patents, including the exclusive right to sue Defendants for infringement and recover damages.

26. Defendant Amazon is a Delaware corporation, with its principal place of business and original headquarters at 410 Terry Avenue North, Seattle, WA 98109. Amazon maintains a regular and established place of business in this District through multiple permanent physical facilities, including in particular Amazon's second headquarters that is located in this District. On information and belief, Amazon's second headquarters is located in the National Landing neighborhood of Arlington, Virginia, which includes at least the leased properties at 241 18th St. S., 1770 Crystal Dr., 2100 Crystal Dr., 2345 Crystal Dr., and 1800 S. Bell St., Arlington, Virginia and included at least two additional sites in development as of February 10, 2022. *See* Presentation by Joe Chapman, Director, Amazon Global Real Estate & Facilities, *PenPlace, Amazon Arlington HQ, Site Plan Review Committee: SPRC #4, February 10, 2022* at 3, [https://www.arlingtonva.us/files/sharedassets/public/v/1/projects/documents/site-plan-projects/penplace/2022\\_02-07-sprc-4-deck.pdf](https://www.arlingtonva.us/files/sharedassets/public/v/1/projects/documents/site-plan-projects/penplace/2022_02-07-sprc-4-deck.pdf).

27. Defendant AWS is a Delaware corporation, with its principal place of business and original headquarters at 410 Terry Avenue North, Seattle, WA 98109. AWS is a subsidiary and controlled affiliate of defendant Amazon. AWS maintains a regular and



established place of business in this District through multiple permanent physical facilities, including data centers. On information and belief, AWS maintains data centers in this District in Fairfax, Loudoun, and Prince William counties. *See* Roger Wehner, AWS Vice President of Economic Development, *Learn About AWS's Long-Term Commitment to Virginia*, Amazon.com (June 7, 2023), <https://www.aboutamazon.com/news/aws/aws-commitment-to-virginia>. In January 2023, AWS announced that it planned to invest an additional \$35 billion in Virginia to establish additional data center campuses in new locations across Virginia by 2040.

28. Defendants have committed and continue to commit acts of patent infringement of the Asserted Patents including by making, using, selling, offering for sale, and importing infringing apparatuses and systems and performing infringing methods.

#### **JURISDICTION AND VENUE**

29. This is an action for patent infringement under the Patent Laws of the United States, 35 U.S.C. § 101 *et seq.*

30. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

31. This Court has specific and general personal jurisdiction over Defendants Amazon and AWS consistent with the requirements of the Due Process Clause of the United States Constitution and the Virginia Long-Arm Statute. Va. Code Ann. § 8.01-328.1. On information and belief, each Defendant has sufficient minimum contacts with the forum because each Defendant transacts substantial business in the State of Virginia and in this District.

32. Defendant Amazon has substantial contacts with the forum as a consequence

of actively establishing its second headquarters in Virginia and in this District, and Amazon conducts substantial business in Virginia. Amazon states in its most recent 10-K filing to the SEC for fiscal year ended December 31, 2023, dated February 2, 2024, that “[w]e own and lease our corporate headquarters in Washington’s Puget Sound region and Arlington, Virginia.” Amazon sells, makes, uses, and offers for sale its products and services, including products and services that infringe the DivX’s Asserted Patents, within the State of Virginia, including to customers in Virginia. A Court in this District has observed in April 2020: “It must be said that Amazon is nothing if not ubiquitous in the United States. Furthermore, after considering 238 cities, Amazon chose Arlington in the Eastern District of Virginia as the location for its HQ2, and will invest \$2.5 billion and 25,000 jobs in the undertaking. As such, Amazon cannot in good faith represent to the Court that E.D. Va. is an undesirable or inconvenient location to operate and do business. Litigating should not be an additional significant strain.” *Maglula, Ltd. v. Amazon.com, Inc.*, No. 1:19-cv-01570, 2020 WL 9536937, at \*16 (E.D. Va. Apr. 9, 2020). In addition, in early 2022, Amazon admitted in a district court filing that engineers who work on the design and development of video streaming on Prime Video are located in Arlington, Virginia. *See Wag Acquisition, LLC v. Amazon.com, Inc.*, No. 6:21-cv-000815, ECF No. 30-82 at 1 (W.D. Tex. Jan. 6, 2022).

33. Defendant AWS has substantial contacts with the forum as a consequence of its establishment of, and significant financial investment in, physical infrastructure in this District, and AWS conducts substantial business in Virginia. Between 2011 and 2021, AWS invested \$51.9 billion in its Virginia data centers. *See* Roger Wehner, AWS Vice President of Economic Development, *Learn About AWS’s Long-Term Commitment to Virginia*, Amazon.com (June 7, 2023), <https://www.aboutamazon.com/news/aws/aws-commitment-to->

virginia. AWS employs over 8,800 employees in the State of Virginia. *Id.* AWS sells, makes, uses, and offers for sale its “AWS Elemental” products and services, including products and services that infringe DivX’s Asserted Patents, within the State of Virginia, including to customers in Virginia. *See Video on Demand on AWS Foundation Implementation Guide*, Amazon Web Services, Inc. (last updated Sept. 2024) at 21, <https://docs.aws.amazon.com/pdfs/solutions/latest/video-on-demand-on-aws-foundation/video-on-demand-on-aws-foundation.pdf>.

34. Defendants have committed and continue to commit acts of patent infringement, including by making, using, selling, offering for sale and importing infringing apparatuses and systems including digital tablets, dedicated streaming media and video processing devices and set-top boxes, and components thereof, and by providing infringing services, including video encoding and streaming services, within this District.

35. Venue is proper for Defendants in this District under 28 U.S.C. §§ 1391(b) and (c), and 1400(b) because, as described above, a substantial part of the events giving rise to DivX’s claims occurred in this District, and because Amazon, with its second headquarters in Arlington, Virginia, resides within this District. Both Amazon and AWS have regular and established places of business within this District with employees in this District. Amazon has pled in legal filings that venue in this District is proper. In a 2020 action filed by Amazon in this District, Amazon asserted that venue was proper under 28 U.S.C. § 1391(b) because, among other things “it is a district in which Plaintiff [Amazon] maintains headquarters and/or substantial business operations.” *Amazon.com, Inc. v. WDC Holdings LLC*, No. 1:20-cv-484, ECF No. 1, ¶ 26 (E.D. Va. Apr. 27, 2020).

## THE ASSERTED PATENTS

### I. U.S. Patent No. 10,412,141

36. The '141 patent, entitled "Systems and methods for seeking within multimedia content during streaming playback," was lawfully issued on September 10, 2019. A true and correct copy of the '141 patent is attached as Exhibit 1.

37. The '141 patent names Roland Osborne as inventor.

38. DivX owns by assignment the entire right and title in and to the '141 patent, including the right to seek damages for infringement thereof.

39. The '141 patent claims are directed to solving problems specific to particular computing technologies, including transmission of digital video by computer systems over computer networks to play video on user computing devices such as laptops, mobile phones, and modern televisions. '141 patent at 1:28-2:19.

40. The inventions described and claimed in the '141 patent address, among other things, the specific problem that prior internet video delivery processes could not request, deliver, and process video data to efficiently and responsively perform "trick play" operations, which may include, for example, rewinding, fast-forwarding, and skipping between scenes in video files. '141 patent at 1:40-55, 2:1-19.

41. Prior to the '141 patent inventions, video playback methods were "typically limited in the scope and flexibility of the progressive playback they provide." '141 patent at 1:40-2:19. Progressive playback methods "typically download[ed] files linearly from the beginning to the end." *Id.* at 1:40-55. As a result, "[a]lthough suitable for playback of short video clips, these methods typically do not support random seeking, trick-play and playback of remotely stored longer content such as feature length movies." *Id.*

42. The inventions described and claimed in the '141 patent address these and other problems. For example, the inventions describe methods that use a new index file for encoded video data and a new computing process by which a video playback computing device requests and receives, from a server, the new index file and uses it to format requests for specific portions of the encoded video data. '141 patent at 5:28-49, 6:28-37, 6:47-7:12. Using the '141 patent's processes, a server computer provides a client computer with a new file structure providing an index to "the location of various portions of the media." *Id.* at 6:28-37. The client device interprets the index to format requests to the server for specific portions of the video data. *Id.* "Instead of sequentially downloading a media file," as in prior protocols, the '141 patent inventions allow the client device to "request non-sequential portions of the media file." *Id.* at 5:29-49. As a result, by using the '141 patent's improved file structure and process, a client device (and its user) need not "wait[] until the required information has been downloaded to perform a 'trick play' function." *Id.* Instead, by using the '141 patent inventions, a client device "can determine portions of a media file that are required to support a specific 'trick play' function and request those portions of the file from the remote server." *Id.*

43. As another example, the new file structures and methods for using them, as described and claimed in the '141 patent, also improve upon prior methods that used "a server driven approach" in which, after receiving a "trick play" request from the playback device, "the server parses the data file and determines which data to send." '141 patent at 1:56-67. The "server" approach often required "custom web servers," because "[s]tandard HTTP web servers however do not typically provide this functionality." *Id.* Utilizing custom web servers increased the need for computing resources, compared to the '141 patent's device-driven protocol, because "custom web servers providing [video data parsing and analyzing] functionality often scale

poorly when called upon to deliver content simultaneously to a large number of players.” *Id.* The ’141 patent’s device-driven protocol does not require “custom web servers” and therefore reduces the computing resources needed to perform efficient and responsive trick play functions. *Id.*; *see also* ’141 File History, Response to Office Action, Feb. 20, 2019, at 16.

44. The new file structures and processes of the ’141 patent inventions also improve upon prior systems that could calculate byte ranges for trick play operations only when utilizing less-efficient constant bitrate encoding for video data. ’141 File History, Response to Office Action, Feb. 20, 2019, at 14–15.

45. The methods claimed in the ’141 patent provide more responsive trick play operations with less delay. Claim 20, for example, recites a method of playing back content on a playback device and incorporates multiple inventive concepts described in the ’141 patent, including using index information to determine and request byte ranges based on a new playback location after a seek instruction. ’141 patent at 14:31-15:6. Claim 28, which depends from claim 20, also incorporates discarding audio and video data contained within the buffer in response to a received seek instruction. *Id.* at 16:10-12. Claims 20 and 28 offer a particular “how” for improving trick play functionality and efficiency: for example, provide an encoded video file having an index and use that index to request particular byte ranges from the server using the playback device.

## **II. U.S. Patent No. 10,715,806**

46. The ’806 patent, entitled “Systems, methods, and media for transcoding video data,” was lawfully issued on July 14, 2020. A true and correct copy of the ’806 patent is attached as Exhibit 2.

47. The '806 patent names Ivan Vladimirovich Naletov and Sergey Zurpal as inventors.

48. DivX owns by assignment the entire right and title in and to the '806 patent, including the right to seek damages for infringement thereof.

49. The '806 patent claims are directed to addressing problems specific to particular computing technologies, including: transcoding of a video data file from a first encoded data structure to a set of second, differently encoded data structures. The '806 patent explains that “[t]ranscoding is an important task in video distribution applications.” '806 patent at 1:23-24.

50. Among the challenges solved by the inventions described and claimed in the '806 patent is the specific problem of the consumption of computing resources and corresponding time required to perform video transcoding in video distribution computer applications. '806 patent at 1:23-42. The '806 patent explains that transcoding video data, and in particular the decoding of encoded video data and “estimation of encoding parameters” from the raw video data, “is very time-consuming.” '806 patent at 1:39-40. Accordingly, the '806 patent recognizes a need to “reduce latency and processing times” in video transcoding computing processes. '806 patent at 13:16-20.

51. The inventions described and claimed in the '806 patent address these computing performance and efficiency problems and concerns. The inventions provide a more efficient, improved approach to video transcoding computing processes that, among other benefits, requires fewer computing resources and less time to convert encoded video data into a set of output video files.

52. For example, the '806 patent inventions can achieve improved computing efficiency by providing metadata describing the encoded video data to the transcoding system

without requiring that the computing system decode the encoded video multiple times to obtain that data. '806 patent at 2:39-41, 2:53-59, 4:31-36, 4:45-5:14, Fig. 2. Accordingly, the computing efficiency benefits of the '806 patent inventions can increase with the number of output streams that a transcoding computing system must generate. By using the metadata, a video transcoding computer implementing the '806 patent inventions can re-encode input video data into multiple output files without decoding the input data and generating encoding parameters for each of the output files, thereby making the transcoding process more efficient and saving time and computing resources. '806 patent at 10:22-46, 10:61-67, 11:27-47, 11:60-13:6; *see also* '806 File History, Response to Office Action, Nov. 12, 2019, at 10. This efficiency benefit also enables efficient performance of video transcoding on parallel computing systems. '806 patent at 13:16-2; '806 File History, Response to Office Action, Nov. 12, 2019, at 10.

53. The methods claimed in the '806 patent provide better video transcoding performance and efficiency. Claim 1, for example, recites a method for transcoding video data that incorporates multiple inventive concepts described in the '806 patent, including generating media metadata and re-encoding video streams based on the metadata. '806 patent at 13:47-14:9. Claim 1 offers a particular “how” for improving video transcoding efficiency: for example, provide metadata to parallel processors to avoid expending resources decoding the encoded video file on each processor prior to each transcoding operation. *Id.*

### **III. U.S. Patent No. 9,955,195**

54. The '195 patent, entitled “Systems and methods for encoding and streaming video encoded using a plurality of maximum bitrate levels,” was lawfully issued on April 24, 2018. A true and correct copy of the '195 patent is attached as Exhibit 3.

55. The '195 patent names Kouros Sh Soroushian as inventor.



56. DivX owns by assignment the entire right and title in and to the '195 patent, including the right to seek damages for infringement thereof.

57. The '195 patent claims are directed to addressing problems specific to particular computing technologies, including encoding video data in data structures that provide high-quality adaptive bitrate streaming over a computer network to a variety of playback computing devices, with different technical capabilities, that process and display the video data. '195 patent at 1:15-20, 1:24-52.

58. The '195 patent provides background information about adaptive bitrate streaming: "Adaptive bitrate streaming . . . involves detecting the present streaming conditions (e.g. the user's network bandwidth and CPU capacity) in real time and adjusting the quality of the streamed media accordingly." '195 patent at 1:32-35. Adaptive bitrate streaming allows a video playback computing device to adapt the video quality to streaming conditions to optimize the video playback quality: "[i]n order to provide the highest quality video experience independent of the network data rate, the adaptive bitrate streaming systems switch between the available streams of video data throughout the delivery of the video data according to a variety of factors, including, but not limited to, the available network data rate and video decoder performance." *Id.* at 5:48-54.

59. Adaptive bitrate streaming typically requires video data formatted in a particular data structure, which includes multiple "streams" of data representing the same video content: "[i]n adaptive streaming systems, the source media is typically stored on a media server as a top level index file pointing to a number of alternate streams that contain the actual video and audio data. Each stream is typically stored in one or more container files." *Id.* at 1:36-40. "Alternative streams are streams that encode the same media content in different ways." *Id.* at 6:18-19. For

example, “[i]n many instances, alternative streams encode media content (such as but not limited to video) at different resolution and sample aspect ratio combinations and different maximum bitrates.” *Id.* at 6:19-22.

60. Adaptive bitrate streaming can impose technical burdens on computing systems and networks. For example, formatting video data into multiple data structures for adaptive bitrate streaming consumes computing resources, and corresponding time and power. The computing resource burdens typically increase with the number of video streams needed to support multiple types of playback devices having different technical characteristics and capabilities. Different video playback computing devices may, for example, “hav[e] a variety of resolutions, frame rates, and/or sample aspect ratios,” ’195 patent at 1:56-60, and they may “have different display aspect ratios and utilize different types of network connections,” *id.* at 2:28-34. *See also id.* at 2:62-3:1 (describing devices with different display aspect ratios and network connections), 4:16-21 (describing devices with a variety of resolutions, frame rates, and/or sample aspect ratios”).

61. Among other benefits, the ’195 patent inventions allow server computers to provide adaptive bitrate streaming services to a variety of different client playback devices while reducing the sizes of the video data files for each device compared to prior systems, which results in both computer memory storage and network bandwidth savings. One way the ’195 patent inventions achieve this benefit is by analyzing specific video content data to determine an optimal target maximum bitrate for a combination of resolution and frame rate. ’195 patent at 4:22-30, 8:28-32, 8:47-63, Fig. 3. By determining an optimal target maximum bitrate, the encoding system can reduce the number of bits in the video file, because “[t]he quality of video encoded with a specific resolution, and frame rate typically does not improve appreciably beyond

a specific maximum bitrate threshold.” *Id.* at 4:22-30. The ’195 patent thus recognizes that “it can be beneficial to determine the optimal maximum bitrate at which to encode a specific piece of video content to efficiently achieve the highest quality video at a specific resolution and frame rate.” *Id.* at 4:33-41. Prior video encoding systems encoded video less efficiently because they did not perform these operations of the ’195 patent inventions. ’195 File History, Response to Office Action, Aug. 3, 2017, at 8-9; ’195 File History, Amendment, Aug. 19, 2015, at 9-10. Determining an optimal target maximum bitrate for a combination of resolution and frame rate allows the grouping of multiple combinations that have similar optimal target maximum bitrates and encoding the video data for the combinations in each group using a single maximum bitrate for multiple combinations instead of an individual maximum bitrate for each individual combination. *Id.* at 1:56-60, 4:16-21, 4:33-41, 6:7-11, 8:64-9:50, Fig. 4, Fig. 5.

62. The systems claimed in the ’195 patent provide improved efficiency for adaptive bitrate streaming. Claim 1, for example, recites a source encoder that incorporates multiple inventive concepts described in the ’195 patent, including determining an optimal target maximum bitrate for one or more combinations of resolution and frame rate and encoding a set of video streams for adaptive bitrate streaming based on that determination. ’195 patent at 10:42-67. Claim 1 offers a particular “how” for improving adaptive bitrate streaming encoding and storage: for example, identify optimal maximum bitrates based on specified criteria and determine a set of those bitrates to encode alternative streams. *Id.*

#### **IV. U.S. Patent No. 11,611,785**

63. The ’785 patent, entitled “Systems and methods for encoding and streaming video encoded using a plurality of maximum bitrate levels,” was lawfully issued on March 21, 2023. A true and correct copy of the ’785 patent is attached as Exhibit 4.

64. The '785 patent names Kourosh Soroushian as inventor.

65. DivX owns by assignment the entire right and title in and to the '785 patent, including the right to seek damages for infringement thereof.

66. The '785 patent claims are directed to addressing problems specific to particular computing technologies, including encoding video data in data structures that provide high-quality adaptive bitrate streaming over a computer network to a variety of playback computing devices, with different technical capabilities, that process and display the video data. '785 patent at 1:22-27, 1:31-59.

67. The '785 patent provides background information about adaptive bitrate streaming: "Adaptive bitrate streaming . . . involves detecting the present streaming conditions (e.g. the user's network bandwidth and CPU capacity) in real time and adjusting the quality of the streamed media accordingly." '785 patent at 1:39-42. Adaptive bitrate streaming allows a video playback computing device to adapt the video quality to streaming conditions to optimize the video playback quality: "[i]n order to provide the highest quality video experience independent of the network data rate, the adaptive bitrate streaming systems switch between the available streams of video data throughout the delivery of the video data according to a variety of factors, including, but not limited to, the available network data rate and video decoder performance." *Id.* at 5:55:61.

68. Adaptive bitrate streaming typically requires video data formatted in a particular data structure, which includes multiple "streams" of data representing the same video content: "[i]n adaptive streaming systems, the source media is typically stored on a media server as a top level index file pointing to a number of alternate streams that contain the actual video and audio data. Each stream is typically stored in one or more container files." '785 patent at 1:43-47.

“Alternative streams are streams that encode the same media content in different ways.” *Id.* at 6:24-25. For example, “[i]n many instances, alternative streams encode media content (such as but not limited to video) at different resolution and sample aspect ratio combinations and different maximum bitrates.” *Id.* at 6:25-28.

69. Adaptive bitrate streaming can impose technical burdens on computing systems and networks. For example, formatting video data into multiple data structures for adaptive bitrate streaming consumes computing resources, and corresponding time and power. The computing resource burdens typically increase with the number of video streams needed to support multiple types of playback devices having different technical characteristics and capabilities. Different video playback computing devices may, for example, “hav[e] a variety of resolutions, frame rates, and/or sample aspect ratios,” ’785 patent at 1:63-67, and they may “have different display aspect ratios and utilize different types of network connections,” *id.* at 2:36-42. *See also id.* at 3:3-9 (describing devices with different display aspect ratios and network connections), 4:23-28 (describing devices with a variety of resolutions, frame rates, and/or sample aspect ratios”).

70. Among other benefits, the ’785 patent inventions allow server computers to provide adaptive bitrate streaming services to a variety of different client playback devices while reducing the sizes of the video data files for each device compared to prior methods, which results in both computer memory storage and network bandwidth savings. One way the ’785 patent inventions achieve this benefit is by generating multiple encodings for a piece of video content at a resolution at multiple different target bitrates, comparing the quality of those encodings, and selecting encodings to upload with an index file based on quality. ’785 patent at 4:28-32, 4:38-40, 8:34-37, 8:53-54, 8:65-9:2, Fig. 3. Based on that comparison, the ’785

inventions can select resolution and target bitrate combinations for alternative streams for use in adaptive bitrate streaming. *Id.* By selecting resolution and target bitrate combinations based on quality, the encoding system can reduce the number of bits in the video file, because “[t]he quality of video encoded with a specific resolution, and frame rate typically does not improve appreciably beyond a specific maximum bitrate threshold.” *Id.* at 4:28-32, 4:38-40. The ’785 patent thus recognizes that “it can be beneficial to determine the optimal maximum bitrate at which to encode a specific piece of video content to efficiently achieve the highest quality video at a specific resolution and frame rate.” *Id.* at 4:40-48. Prior video encoding methods encoded video less efficiently because they did not perform these operations of the ’785 patent inventions. *See* ¶ 61. Determining a resolution and target bitrate combination based on comparing quality also allows the grouping of multiple combinations that have similar optimal target maximum bitrates and encoding the video data for the combinations in each group using a single maximum bitrate for multiple combinations instead of an individual maximum bitrate for each individual combination. *Id.* at 1:63-67, 4:23-28, 4:40-48, 6:14-18, 9:3-57, Fig. 4, Fig. 5. By uploading the selected encodings with an index file to provide to a playback device, the ’785 inventions improve storage and computing efficiency for adaptive bitrate streaming. *Id.* at 6:38-52, 7:1-25.

71. The methods claimed in the ’785 patent provide improved efficiency for adaptive bitrate streaming. Claim 1, for example, recites a method for encoding source content that incorporates multiple inventive concepts described in the ’785 patent, including selecting a plurality of resolution and bitrate combinations based on performing multiple encodings of content and evaluating the quality of those encodings, and uploading the selected encodings with an index file for use by a playback device. ’785 patent at 10:48-11:12. Claim 1 offers a particular “how” for improving adaptive bitrate streaming encoding and storage: for example, select target

bitrates based on quality evaluations of multiple encodings and uploading encodings of the content at the selected combinations with an index file to provide adaptive bitrate streaming. *Id.*

**V. U.S. Patent No. 10,542,303**

72. The '303 patent, entitled "Systems and methods for protecting elementary bitstreams incorporating independently encoded tiles," was lawfully issued on January 21, 2020. A true and correct copy of the '303 patent is attached as Exhibit 5.

73. The '303 patent names Jason Braness, William David Amidei, and Mayur Srinivasan as inventors.

74. DivX owns by assignment the entire right and title in and to the '303 patent, including the right to seek damages for infringement thereof.

75. The '303 patent claims are directed to solving problems specific to particular computing technologies, including processing compressed video data to encrypt the data and protect the data from unauthorized access or copying. '303 patent at 1:22-26.

76. Compressing video data into a defined encoded format or structure "permits fewer bits to be used in representing the content of the original uncompressed video data." '303 patent at 1:33-35. Reducing the bits used to represent the content of the video data facilitates transmission of the compressed video data from a server computer to a playback computing device over a network using reduced bandwidth. When a playback computing device receives compressed video data over a network it must process the compressed data to transform it "using a reverse process (i.e., 'decoding') yielding a digital video unit of data that is either visually similar or identical to the original data." *Id.* at 1:35-38.

77. Certain video playback computing devices have processors that can perform "parallel processing" of encoded, compressed video data structures, in which the computing

device performs multiple decoding operations on the data structures simultaneously. '303 patent at 1:51-57, 5:32-42. Performing parallel processing can increase the speed at which a playback computing device processes and decodes video data for playback.

78. The '303 patent explains that certain encoded video data structures lend themselves to effective parallel processing during decoding on playback computing devices because individual video frames have independently encoded video data units, such as rectangular “tiles.” '303 patent at 1:51-57, 5:32-42. Those encoded video data structures enable parallel processing by “allow[ing] for portions of a frame to be independently encoded and decoded, without reference to or dependence from information in other portions.” *Id.* at 5:32-42. In particular, certain video data compression structures encode video data frames as “rectangular areas (tiles)” that “can be used for encoding and decoding portions of a frame simultaneously by different processors.” *Id.* That is, these “[c]ompression units enable parallelism when decoding the bitstream as they can be processed independently of each other.” *Id.* at 5:47-49.

79. Encoding video data into compressed data structures, such as tiles, can introduce security challenges. '303 patent at 5:49-65, 6:32-40, 9:55-60. For example, a compressed data structure that allows portions to “be processed independently of each other” can reduce the effectiveness of prior video data encryption operations, which typically encrypted only a first set of bytes of a video frame or package of video data. *Id.* That partial encryption could be sufficient to protect certain frames or packages of video data. However, if the video data has independently decodable portions, such as tiles, “if merely the first x bytes of the video NAL units or frame were encrypted, other portions (tiles) may be fully decodable without having to decrypt the encrypted portion(s) because of their independence from the encrypted portion(s).” *Id.* at 5:49-53; *see also id.* at 6:32-40, 9:55-60.



80. The inventions described and claimed in the '303 patent improve computing systems by addressing these technological problems. Compared to prior computing systems, the '303 patent inventions allow increased processing performance on playback devices while also increasing the security of the video data to protect against unauthorized access or copying. '303 patent at 5:49-65, 6:32-40, 6:65-7:2, 9:55-65. The '303 patent inventions achieve this improvement while also reducing the computing resources needed to process the encryption and decryption of video data compared to other approaches. *Id.* at 4:66-5:3, 6:28-32, 7:2-7, 8:60-65.

81. The '303 patent inventions achieve these benefits with new computing approaches, such as processing encoded video data to identify locations of independently encoded units and then applying partial encryption to those units, for example, so that each tile is protected. These approaches can determine which portions of video data to encrypt by identifying the locations of the tiles. '303 patent at 10:5-8. After determining the tiles' locations, these approaches "apply partial frame encryption to one or more portions of the compression units (i.e., tiles) within a frame of video." *Id.* at 6:28-32, 7:2-7. As a result, "overhead costs associated with encrypting video content" are reduced, *id.*, while "the security of [the] encoded bitstream having tiles (or other compression units) can be improved," *id.* at 9:60-65.

82. The systems claimed in the '303 patent provide increased playback performance and security while reducing the resource costs of encryption and decryption and bandwidth required to transmit encrypted video. Claim 1, for example, recites a computing system for encrypting video data comprising tiles that incorporates multiple inventive concepts described in the '303 patent, including determining locations of a plurality of tiles based on information in at least one metadata header and encrypting a portion of each of a plurality of tiles. '303 patent at 13:25-43. Claim 1 offers a particular "how" for improving video playback security and

efficiency: for example, encode video data to include tiles to enable parallel decryption and decoding, and partially encrypt the video content based on those tiles. *Id.* Claim 16, as another example, recites a content decoder including a decoder application that receives and decrypts and decodes video data including independently encoded tiles, based on information provided by at least one metadata header associated with a frame of video. '303 patent at 14:55-15:5. Claim 16, too, offers a particular “how” for improving video playback security and efficiency: for example, request and receive video data encoded to include tiles to enable parallel decryption and decoding, and partially encrypt the video content based on those tiles.

#### **VI. U.S. Patent No. 11,245,938**

83. The '938 patent, entitled “Systems and methods for protecting elementary bitstreams incorporating independently encoded tiles,” was lawfully issued on February 8, 2022. A true and correct copy of the '938 patent is attached as Exhibit 6.

84. The '938 patent names Jason Braness, William David Amidei, and Mayur Srinivasan as inventors.

85. DivX owns by assignment the entire right and title in and to the '938 patent, including the right to seek damages for infringement thereof.

86. The '938 patent claims are directed to solving problems specific to particular computing technologies, including processing compressed video data to encrypt the data and protect the data from unauthorized access or copying. '938 patent at 1:26-30.

87. Compressing video data into a defined encoded format or structure “permits fewer bits to be used in representing the content of the original uncompressed video data.” '938 patent at 1:37-39. Reducing the bits used to represent the content of the video data facilitates transmission of the compressed video data from a server computer to a playback computing

device over a network using reduced bandwidth. When a playback computing device receives compressed video data over a network, it must typically process the compressed data to transform it “using a reverse process (i.e., ‘decoding’) yielding a digital video unit of data that is either visually similar or identical to the original data.” *Id.* at 1:39-42.

88. Certain video playback computing devices have processors that can perform “parallel processing” of encoded, compressed video data structures, in which the computing device performs multiple decoding operations on the data structures simultaneously. ’938 patent at 1:55-61, 5:37-47. Performing parallel processing can increase the speed at which a playback computing device processes and decodes video data for playback.

89. The ’938 patent explains that certain encoded video data structures lend themselves to effective parallel processing during decoding on playback computing devices because individual video frames have independently encoded video data units, such as rectangular “tiles.” ’938 patent at 1:55-61, 5:37-47. Those encoded video data structures enable parallel processing by “allow[ing] for portions of a frame to be independently encoded and decoded, without reference to or dependence from information in other portions.” *Id.* at 5:37-47. In particular, certain video data compression structures encode video data frames as “rectangular areas (tiles)” that “can be used for encoding and decoding portions of a frame simultaneously by different processors.” *Id.* That is, these “[c]ompression units enable parallelism when decoding the bitstream as they can be processed independently of each other.” *Id.* at 5:52-54.

90. Encoding video data into compressed data structures, such as tiles, can introduce security challenges. ’938 patent at 5:53-6:3, 6:37-45, 9:60-65. For example, a compressed data structure that allows portions to “be processed independently of each other” can reduce the effectiveness of prior video data encryption operations, which typically encrypted only a first set

of bytes of a video frame or package of video data. *Id.* That partial encryption could be sufficient to protect certain frames or packages of video data. However, if the video data has independently decodable portions, such as tiles, “if merely the first x bytes of the video NAL units or frame were encrypted, other portions (tiles) may be fully decodable without having to decrypt the encrypted portion(s) because of their independence from the encrypted portion(s).” *Id.* at 5:54-58; *see also id.* at 6:37-45, 9:60-65.

91. The inventions described and claimed in the '938 patent improve computing systems by addressing these technological problems. Compared to prior computing systems, the '938 patent inventions allow increased processing performance on playback devices while also increasing the security of the video data to protect against unauthorized access or copying. '938 patent at 5:54-6:3, 6:37-45, 7:3-7, 9:60-10:3. The '938 patent inventions achieve this improvement while also reducing the computing resources needed to process the encryption and decryption of video data compared to other approaches. *Id.* at 5:4-8, 6:33-37, 7:7-12, 8:65-9:3.

92. The '938 patent inventions achieve these benefits with new computing approaches, such as processing encoded video data to identify locations of independently encoded units and then applying partial encryption to those units, for example, so that each tile is protected. These approaches can determine which portions of video data to encrypt by identifying the locations of the tiles. '938 patent at 10:10-13. After determining the tiles' locations, these approaches “apply partial frame encryption to one or more portions of the compression units (i.e., tiles) within a frame of video.” *Id.* at 6:33-37, 7:5-12. As a result, “overhead costs associated with encrypting video content” are reduced, *id.*, while “the security of [the] encoded bitstream having tiles (or other compression units) can be improved,” *id.* at 9:65-10:3.

93. The '938 patent inventions also facilitate decoding of video encoded using the inventions' new computing process. These approaches enhance the efficiency of decoding video with partially encrypted, independently encoded units, such as tiles, by providing a decoder that receives metadata header information that the decoder can use to determine the locations of the independently encoded units within a frame. '938 patent at 12:52-54, 12:57-61. Further, the decoder of the '938 inventions may also receive information that identifies locations of encrypted portions of independently encoded compression units, such as tiles. *Id.* at 7:24-30. This information facilitates identification and decryption of each encrypted unit at the decoder. *Id.*; *see also id.* at 4:32-35, 5:28-36, 12:20-28.

94. The systems claimed in the '938 patent provide increased playback performance and security while reducing the resource costs of encryption and decryption and bandwidth required to transmit encrypted video. Claim 8, for example, recites a decoder for decrypting and decoding video data comprising tiles that incorporates multiple inventive concepts described in the '938 patent, including receiving information identifying locations of a plurality of independently encoded tiles based on information in at least one metadata header, receiving encryption information identifying encrypted portions of a plurality of tiles, and using that information to decrypt the partially encrypted portions and decode the tiles using parallel processing. '938 patent at 14:16-43. Claim 8 offers a particular "how" for improving video playback security and efficiency: for example, encode video data to include tiles to enable parallel decryption and decoding, partially encrypt the video content based on those tiles, and provide the necessary files to a parallel-processing decoder to determine the locations of the tile, determine the locations of the encrypted portions, and decode the tiles in parallel. *Id.*

## THE ACCUSED PRODUCTS

95. The Accused Products include certain products and services that Defendants have made, used, offered for sale, sold, and/or imported into the United States, and products and services that Defendants continue to make, use, offer for sale, sell, and/or import into the United States. First, the Accused Products include Amazon video streaming services, including Amazon Prime Video (“Accused Streaming Services”). Second, the Accused Products include certain Amazon devices, including but not limited to devices running Fire OS: various generations and screen sizes of Amazon Fire, Fire HD, Fire HD Plus, Fire Kids, Fire Kids Pro, Fire HD Kids, and Fire HD Kids Pro tablets (collectively, “Amazon Fire tablets”); various generations of Amazon Fire TV Stick and Fire Cube devices (collectively, “Amazon Fire TV/Cube devices”); various generations and screen sizes of Amazon Echo Show devices (“Amazon Echo Show devices”); and various screen sizes of Amazon Fire TV 4-Series and Fire TV Omni Series sets (collectively, “Amazon Fire TV sets”) (all consumer electronics products collectively “Accused Video Devices”). Third, the Accused Products include Defendants’ video encoding/packaging servers and services, including Amazon Prime Video encoding/packaging servers and services, Amazon Prime Video Direct encoding/packaging servers and services, and AWS video encoding/packaging servers and services, including AWS Elemental servers and services, AWS Elemental MediaConvert, AWS Elemental MediaPackage, and AWS Elemental MediaLive (“AWS Elemental products”), that Defendants use and sell to third parties (all servers and services collectively “Accused Encoding Servers and Services”). Charts showing exemplary infringing functionality using a Fire TV Stick 4K (2023, 2nd Gen) streaming video with Amazon Prime Video streaming service are attached as Exhibits 7, 12, and 13. Charts showing exemplary infringing functionality using AWS Elemental MediaConvert and/or Amazon Prime Video

Direct are attached as Exhibits 8, 9, and 10. A Chart showing exemplary infringing functionality using Amazon Prime Video Direct and/or AWS Elemental MediaConvert and AWS Elemental MediaPackage is attached as Exhibit 11.

96. On information and belief, all Accused Products are configured and operate in substantially the same way with respect to the Asserted Patents asserted against those products.

**COUNT I: INFRINGEMENT OF U.S. PATENT NO. 10,412,141 (AMAZON)**

97. The allegations set forth in paragraphs 1 through 96 of this Complaint are incorporated by reference as though fully set forth herein.

98. Pursuant to 35 U.S.C. § 282, the '141 patent is presumed valid.

99. On information and belief, Amazon has directly infringed and continues to directly infringe one or more method claims of the '141 patent, including but not limited to claims 20 and 28, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by testing and/or using in the United States certain Accused Products.

100. For example, a current-generation Amazon Fire Stick 4K streaming video with the Amazon Prime Video streaming service performs all limitations of claims 20 and 28 of the '141 patent. *See Ex. 7.* The Amazon Prime Video streaming service is an exemplary Accused Streaming Service, and the Amazon Prime Video streaming service operating on an Amazon Fire Stick 4K (an exemplary Accused Video Device) performs the claimed methods of playing back content on a playback device.

101. Amazon has directly infringed and continues to directly infringe claims 20 and 28 by using (e.g., when testing its Prime Video streaming service in the United States) the Accused Video Devices and the Accused Streaming Services.



*See, e.g.*, Amazon Fire TV Stick 4K with AI-powered Fire TV Search, WiFi 6, stream over 1.5 million movies and shows, free & live TV, Amazon, <https://www.amazon.com/Amazon-Fire-TV-Stick-4K-streaming-device/dp/B0CJM1GNFQ/>.

102. The descriptions and infringement theories in Exhibit 7 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case.

103. On information and belief, Amazon has induced and continues to induce infringement of method claims of the '141 patent pursuant to 35 U.S.C. § 271(b), including at least claims 20 and 28, by encouraging its customers and other third parties to perform the claimed methods—for example, encouraging customers to install and use the Accused Streaming Services (e.g., Amazon Prime Video streaming service) on Accused Video Devices (e.g., Amazon Fire Stick 4K) or other consumer electronics devices. Amazon's inducing acts include: providing to third parties and intending that third parties install and use the Accused Streaming



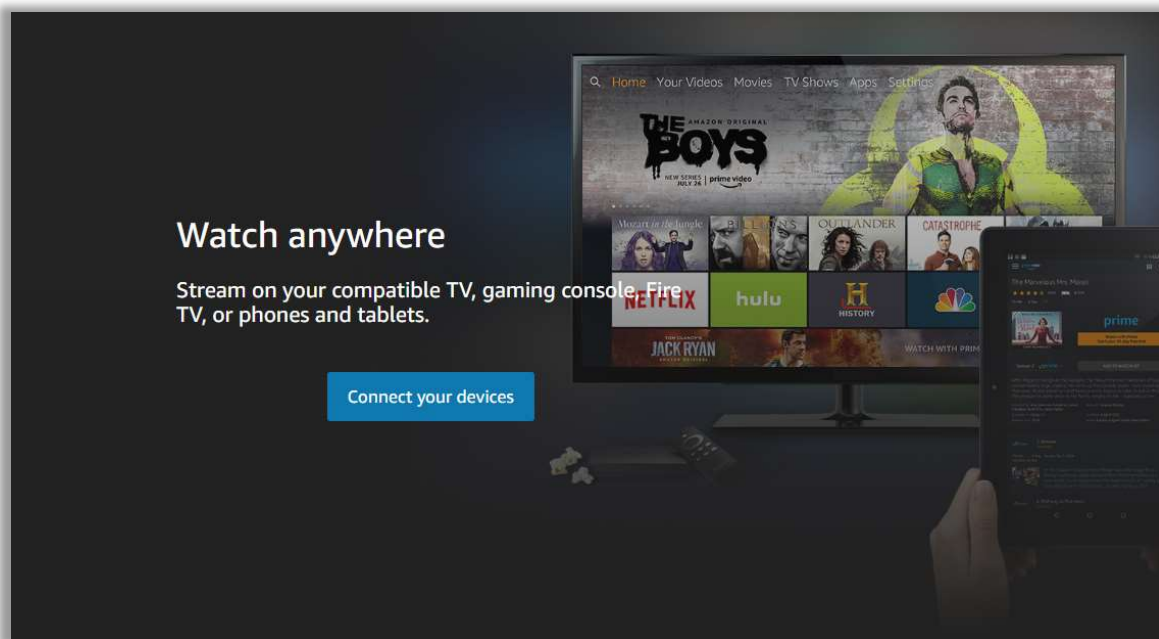
Services on the Accused Video Devices and other consumer electronics devices, and providing instructions to do so; purposefully and voluntarily placing the Accused Streaming Services on Accused Video Devices and other consumer electronics devices in the stream of commerce with the expectation that customers would use those Accused Streaming Services in the United States including in the Eastern District of Virginia; providing, promoting, and/or selling components that enable and/or make use of the Accused Streaming Services on Accused Video Devices and other consumer electronics devices through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the Accused Streaming Services on the Accused Video Devices and other consumer electronics devices operate, including how use infringes the '141 patent. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the '141 patent.

104. Amazon induces infringement when it provides to third parties and intends that third parties install and use the Accused Streaming Services on other consumer electronics devices, including, for example, facilitating pre-installation of the Prime Video streaming service on certain smart TVs and other devices. *See, e.g.,* <https://www.amazon.com/gp/help/customer/display.html?nodeId=GKZQ3LY43DX7RGCF>.

105. Amazon knowingly and intentionally encourages third parties to directly infringe the '141 patent. For example, Amazon induces end users to download the Accused Streaming Services, such as the Amazon Prime Video application, with the intent that end users use the application to stream video to the Accused Video Devices or other consumer electronics devices. Thus, those third parties directly infringe the '141 patent, as described, for example, in Exhibit 7.

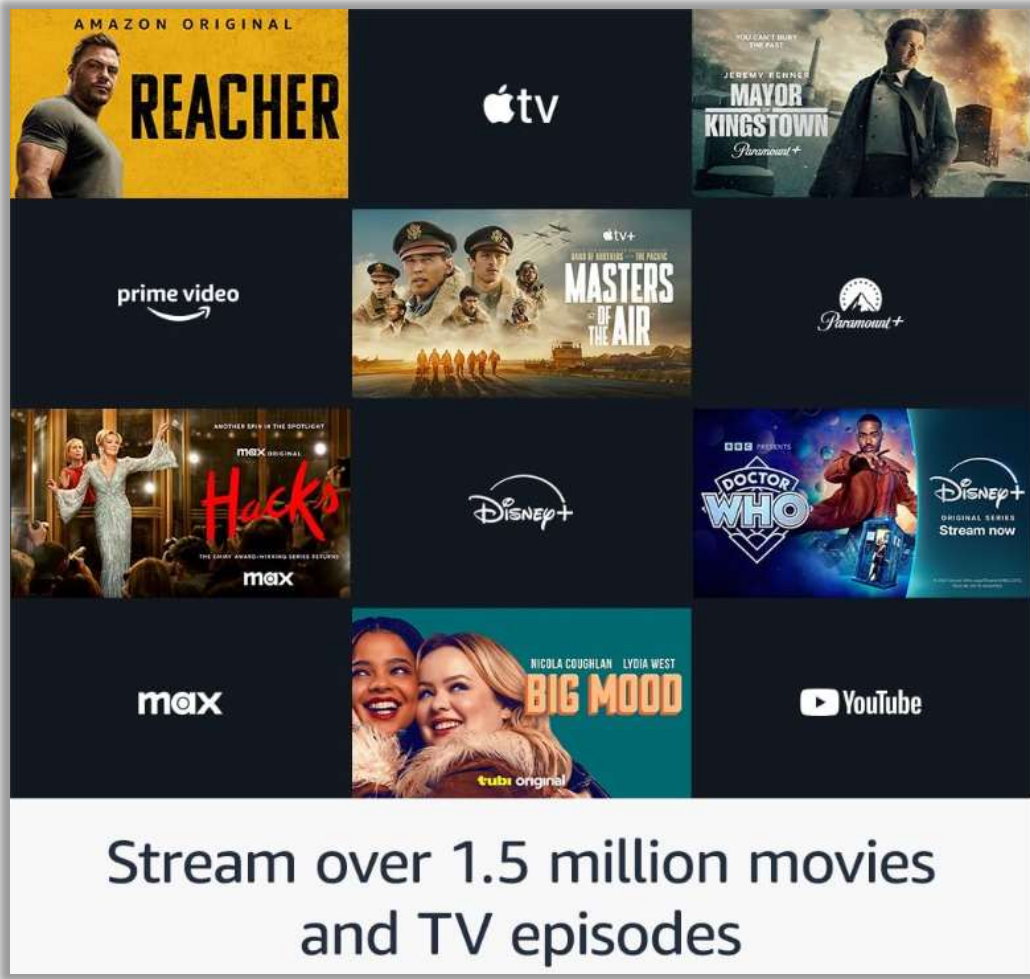
106. Amazon provides the streaming platform for its Prime Video streaming service,

which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



*See, e.g.,* [https://www.amazon.com/gp/video/getstarted/ref=sv\\_atv\\_5](https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5).

107. Amazon provides consumers with Amazon Accused Products for multimedia file playback received from Amazon’s Prime Video streaming platform.



<https://www.amazon.com/Amazon-Fire-TV-Stick-4K-streaming-device/dp/B0CJM1GNFQ/>.

108. Amazon provides instructions to consumers regarding how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the '141 patent:

**Amazon Fire TV Family**



If you've never signed in on your Fire TV or Fire TV Stick, follow the steps below to get started. (Already registered? Begin at step 3):

1. Turn on the device.
2. Sign in with your Amazon account, or create an Amazon account to sign in with.
3. Press the home button on your remote.
4. Enjoy.

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).



### Fire tablet

1. Sign in to your Amazon account on your Fire tablet.
2. If needed, register your device.
3. Open the Prime Video app, or go to the "Video" tab.
4. Enjoy.

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).



### Smart TV, Blu-ray player

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
  - (1) Select "Sign in and start watching" and enter your Amazon account information.
  - (2) Choose "Register on the Amazon website" to get a 5–6 character code, then sign in to your Amazon account and enter your code.  
[Sign in to your Amazon account and enter your code](#)

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).

109. Third parties, including Amazon customers, directly infringe by using the Accused Streaming Services, including on the Accused Video Devices, to stream video, thereby performing the claimed methods. Amazon knowingly induces such infringement by providing the Accused Streaming Services for use on the Accused Video Devices and other consumer electronics devices and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, and likely as early as November 2020, when Amazon learned of the '141 patent, Amazon knows that the induced conduct would constitute infringement—and intends that infringement at the time of committing the aforementioned

affirmative acts, such that the acts and conduct have been and continue to be committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

110. Amazon’s infringement of the ’141 patent is willful, at least since Amazon’s knowledge of its infringement as described above.

111. Amazon’s acts of infringement have caused and continue to cause damage to DivX, and DivX is entitled to recover from Amazon damages sustained as a result of Amazon’s infringement of the ’141 patent, but in no event less than a reasonable royalty.

112. DivX is entitled to past damages for infringement of the ’141 patent’s method claims.

**COUNT II: INFRINGEMENT OF U.S. PATENT NO. 10,715,806 (ALL DEFENDANTS)**

113. The allegations set forth in paragraphs 1 through 112 of this Complaint are incorporated by reference as though fully set forth herein.

114. Pursuant to 35 U.S.C. § 282, the ’806 patent is presumed valid.

115. On information and belief, Defendants have directly infringed and continue to directly infringe one or more method claims of the ’806 patent, including but not limited to claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States the Accused Encoding Servers and Services.

116. For example, AWS Elemental MediaConvert and Amazon Prime Video Direct each performs all limitations of claim 1 of the ’806 patent. *See* Ex. 8. AWS Elemental MediaConvert and Amazon Prime Video Direct are exemplary Accused Encoding Servers and Services and perform the claimed method for transcoding a source video file into a set of

multiple alternate video streams.

117. Defendants have directly infringed and continue to directly infringe the '806 patent by (1) using the Accused Encoding Servers and Services, including using the Accused Encoding Servers and Services to transcode Amazon Prime video data, and (2) using the Accused Encoding Servers and Services to transcode third-party media data and exerting control over AWS and Prime Video Direct services provided to third parties. For example, Defendants provide AWS Elemental MediaConvert as a service to customers whereby Defendants transcode third-party data:

## **AWS Elemental MediaConvert?**

AWS Elemental MediaConvert transcodes file-based content into live stream assets quickly and reliably. Convert content libraries of any size for broadcast and streaming. MediaConvert combines advanced video and audio capabilities with a web services interface and pay-as-you-go pricing. With cloud-based transcoding, you can focus on delivering compelling media experiences and worry less about maintaining video processing infrastructure.

<https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#) .

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

118. The descriptions and infringement theories in Exhibit 8 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case.

119. On information and belief, Defendants have directly infringed and continue to directly infringe the '806 patent by directing and controlling customers' use of the Accused Encoding Servers and Services. For example, customers' "access to and use of" AWS Elemental products and services is governed by at least the AWS Customer Agreement and the AWS Service Terms, each excerpted below:

## AWS Customer Agreement

\*\*For additional information related to each AWS Contracting Party, see the [AWS Contracting Party FAQs](#).

\*Please note that as of January 1, 2024, customers located in Türkiye contract with our Türkiye based AWS Contracting Party, as provided in Section 12. See the [AWS Turkey FAQs](#) for more information.

**Last Updated: May 17, 2024**

[See What's Changed](#)

This AWS Customer Agreement (this "**Agreement**") contains the terms and conditions that govern your access to and use of the Services (as defined below) and is an agreement between the applicable AWS Contracting Party specified in Section 12 below (also referred to as "**AWS**," "**we**," "**us**," or "**our**") and you or the entity you represent ("**you**" or "**your**"). This Agreement takes effect when you click an "I Accept" button or check box presented with these terms or, if earlier, when you use any of the Services (the "**Effective Date**"). You represent to us that you are lawfully able to enter into contracts (e.g., you are not a minor). If you are entering into this Agreement for an entity, such as the company you work for, you represent to us that you have legal authority to bind that entity. Please see Section 12 for definitions of certain capitalized terms used in this Agreement.

<https://aws.amazon.com/agreement/>.

## AWS Service Terms

**Last Updated: November 15, 2024**

### 1. Universal Service Terms (Applicable to All Services)

The Service Terms below govern your use of the Services. Capitalized terms used in these Service Terms but not defined below are defined in the [AWS Customer Agreement](#) or other agreement with us governing your use of the Services (the "Agreement"). For purposes of these Service Terms, "Your Content" includes any "Company Content" and any "Customer Content," and "AWS Content" includes "Amazon Properties."

<https://aws.amazon.com/service-terms/>.

120. Customers' access to and use of Prime Video Direct products and services is governed at least by the Prime Video Direct Digital License Agreement and the Prime Video Direct Terms of Use. *See, e.g., Prime Video Direct Digital License Agreement,*

*[https://videodirect.amazon.com/home/agreement?ref\\_=avd\\_hm\\_ft\\_la](https://videodirect.amazon.com/home/agreement?ref_=avd_hm_ft_la); Prime Video Direct and Video Central Program Site Terms of Use,*

*[https://videodirect.amazon.com/home/help?topicId=G201985470&ref\\_=avd\\_sup\\_G201985470](https://videodirect.amazon.com/home/help?topicId=G201985470&ref_=avd_sup_G201985470).*

121. Defendants condition customers' access to and use of AWS Elemental and Prime Video Direct products and services upon the customers' performance of certain steps outlined in



applicable user, admin, programming, and developer guides and other technical documentation, such as those available at <https://docs.aws.amazon.com/mediaconvert/>. For example, pursuant to the AWS Service Terms, customers “must comply with current technical documentation applicable to the Services (including applicable user, admin, and developer guides) posted on the AWS Site at <https://docs.aws.amazon.com/index.html> (and any successor or related locations designated by us).” *AWS Service Terms*, <https://aws.amazon.com/service-terms/>. Thus, where Defendants control a third party’s performance of the claimed methods for transcoding, those actions are attributable to Defendants.

122. In addition to Defendants’ direct infringement via control over third parties’ use of the Accused Encoding Servers and Services, Defendants also have induced and continue to induce infringement of method claims of the ’806 patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claim 1, by encouraging their customers to use the Accused Encoding Servers and Services, including by using the claimed systems and performing the claimed methods, to transcode third-party media data. Using the Accused Encoding Servers and Services constitutes direct infringement, literally or under the doctrine of equivalents, of one or more method claims of the ’806 patent by Defendants’ customers. *See* Ex. 8. Defendants’ acts of encouragement include: providing to third parties and intending that third parties purchase and use the Accused Encoding Servers and Services, and providing instructions to do so; and purposefully and voluntarily placing the Accused Encoding Servers and Services in the stream of commerce with the expectation that they will be used by customers in the United States including in the Eastern District of Virginia. Furthermore, Defendants have actual knowledge of how the Accused Encoding Servers and Services operate, including how use infringes the ’806 patent. Defendants have undertaken these acts of encouragement with the specific intent that

customers use such Accused Encoding Servers and Services as intended by Defendants in a manner that infringes the asserted claims of the '806 patent.

123. Defendants knowingly and intentionally encourage at least customers of Defendants' AWS Elemental and Prime Video Direct products and services to directly infringe the '806 patent. For example, Defendants provide AWS Elemental MediaConvert transcoding instructions to customers so that such customers will use AWS Elemental MediaConvert to transcode media data in an infringing manner, and Defendants provide Prime Video Direct transcoding instructions to customers so that such customers will use Prime Video Direct to transcode media data in an infringing manner. Thus, those third parties directly infringe the '806 patent, as described, for example, in Exhibit 8.

124. For example, Defendants provide AWS Elemental MediaConvert, which allows customers to “[p]rocess video files to prepare on-demand content for distribution or archiving” and to “transcode[] file-based content into live stream assets quickly and reliably.” *See* <https://aws.amazon.com/mediaconvert/>.

# **AWS Elemental MediaConvert?**

AWS Elemental MediaConvert transcodes file-based content into live stream assets quickly and reliably. Convert content libraries of any size for broadcast and streaming. MediaConvert combines advanced video and audio capabilities with a web services interface and pay-as-you-go pricing. With cloud-based transcoding, you can focus on delivering compelling media experiences and worry less about maintaining video processing infrastructure.

<https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

125. Defendants provide customers with instructions for how to use AWS Elemental MediaConvert and Prime Video Direct in the form of user guides, tutorials, and other technical documents. *See, e.g.*, <https://docs.aws.amazon.com/mediaconvert/>; [https://videodirect.amazon.com/home/help?topicId=G202013390&ref\\_=avd\\_sup\\_G202013390](https://videodirect.amazon.com/home/help?topicId=G202013390&ref_=avd_sup_G202013390). For example, with respect to AWS Elemental MediaConvert, Defendants provide customers with an application program interface (API) reference guide.

# Getting Started with MediaConvert Using the API

PDF

This section shows you how to get started with the MediaConvert API to transcode media files using API calls.

## To get set up to use the AWS Elemental MediaConvert API

### 1. Set up permissions:

- **Permissions that the AWS Elemental MediaConvert service can assume on your behalf.** These allow access to your Amazon S3 buckets and to Amazon API Gateway. For instructions, see [Set Up IAM Permissions](#) in the *AWS Elemental MediaConvert User Guide*.
- **Your [Signature Version 4](#) authentication for the requests that you send to AWS.** When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs, these tools automatically sign the requests for you with the access key and secret key that you specify in your client configuration.

### 2. Set up S3 file locations.

The service reads your input files from and saves your output files to Amazon S3 buckets. For instructions on creating these buckets, see [Create Storage for Files](#) in the *AWS Elemental MediaConvert User Guide*.

### 3. Send your transcoding requests.

Send your requests to manage transcoding jobs, queues, job templates, and presets. For more information, see the following:

- For information about setting up your transcoding job, see the [Creating Your Job Specification](#) topic of this guide.

<https://docs.aws.amazon.com/mediaconvert/latest/apireference/getting-started.html>.

126. Defendants additionally provide customers with a user guide including, among other instructions, instructions to create a “job” via AWS Elemental MediaConvert, which “does the work of transcoding one or more media files.”

## Creating a job

A job does the work of transcoding one or more media files. When you create a job, you specify the input files and settings, the output files and settings, and any other related job settings.

MediaConvert gets the input from the Amazon S3, HTTP, or HTTPS location that you specify. Then MediaConvert transcodes and writes to the output location that you specify in the job's output group settings.

### To create a job

1. Go to the [Jobs](#) page in the MediaConvert console.
2. Choose **Create job**.
3. On the **Create job** page, specify your job settings. Include at least one input file and at least one output group. For detailed information, see [Tutorial: Configuring job settings](#).

Note: Make sure that you select the same AWS Region for your job and your file storage.

4. Specify your IAM role that you created as part of the [Setting up IAM permissions](#) process earlier under **Job settings, AWS integration**.
5. Choose **Create**.

For information about tracking the status of your job, see [Using EventBridge with AWS Elemental MediaConvert](#).

For information about the file names and paths for your job outputs, see [Output file names and paths](#).

6. Optionally, if you don't want to keep the transcoded files that you generate during this tutorial, delete them from Amazon S3 to avoid incurring storage charges. For more information, see [Deleting objects Amazon S3 User Guide](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/getting-started.html>.

127. On information and belief, Defendants also induce infringement by, in some instances, providing on-site servers and encoders, for example, for Elemental Live customers. *See, e.g.*, <https://aws.amazon.com/elemental-live/features/>.

128. Customers' use of AWS Elemental MediaConvert and Prime Video Direct to transcode media data constitutes direct infringement of the '806 patent, as described, for

example, in Exhibit 8. Defendants' customers directly infringe by using the Accused Encoding Servers and Services. Defendants knowingly induce such infringement by providing the Accused Encoding Servers and Services and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, Defendants know that the induced conduct would constitute infringement—and intend that infringement at the time of committing the aforementioned affirmative acts, such that the acts and conduct have been and continue to be committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

129. Defendants' infringement of the '806 patent is willful, at least since Defendants' knowledge of its infringement as described above.

130. Defendants' acts of infringement have caused and continue to cause damage to DivX, and DivX is entitled to recover from Defendants damages sustained as a result of Defendants' infringement of the '806 patent, but in no event less than a reasonable royalty.

131. DivX is entitled to past damages for infringement of the '806 patent's method claims.

**COUNT III: INFRINGEMENT OF U.S. PATENT NO. 9,955,195 (ALL DEFENDANTS)**

132. The allegations set forth in paragraphs 1 through 131 of this Complaint are incorporated by reference as though fully set forth herein.

133. Pursuant to 35 U.S.C. § 282, the '195 patent is presumed valid.

134. On information and belief, Defendants have directly infringed and continue to directly infringe one or more claims of the '195 patent, including but not limited to claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using,

offering for sale, selling, and/or importing into the United States the Accused Encoding Servers and Services.

135. For example, Defendants' server systems used to encode video content offered on, e.g., the Amazon Prime Video streaming platform, through AWS Elemental MediaConvert and/or Amazon Prime Video Direct satisfy all limitations of claim 1 of the '195 patent. *See Ex. 9.* AWS Elemental MediaConvert and Amazon Prime Video Direct are exemplary Accused Encoding Servers and Services and provide the claimed source encoder.

136. Defendants have directly infringed and continue to directly infringe the '195 patent by (1) making, using, selling, offering to sell, and/or importing into the United States the Accused Encoding Servers and Services, including using the Accused Encoding Servers and Services to encode Amazon Prime video data, and (2) using the Accused Encoding Servers and Services to encode third-party media data and exerting control over AWS and Prime Video Direct services provided to third parties. For example, Defendants provide AWS Elemental MediaConvert as a service to customers whereby Defendants encode third-party data:



# **AWS Elemental MediaConvert?**

AWS Elemental MediaConvert transcodes file-based content into live stream assets quickly and reliably. Convert content libraries of any size for broadcast and streaming. MediaConvert combines advanced video and audio capabilities with a web services interface and pay-as-you-go pricing. With cloud-based transcoding, you can focus on delivering compelling media experiences and worry less about maintaining video processing infrastructure.

<https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

137. The descriptions and infringement theories in Exhibit 9 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case

138. On information and belief, Defendants have directly infringed and continue to directly infringe the '195 patent by directing and controlling customers' use of the Accused Encoding Servers and Services. For example, customers' "access to and use of" AWS Elemental products and services is governed by at least the AWS Customer Agreement and the AWS Service Terms, each excerpted below:

## AWS Customer Agreement

\*\*For additional information related to each AWS Contracting Party, see the [AWS Contracting Party FAQs](#).

\*Please note that as of January 1, 2024, customers located in Türkiye contract with our Türkiye based AWS Contracting Party, as provided in Section 12. See the [AWS Turkey FAQs](#) for more information.

**Last Updated: May 17, 2024**

[See What's Changed](#)

This AWS Customer Agreement (this "**Agreement**") contains the terms and conditions that govern your access to and use of the Services (as defined below) and is an agreement between the applicable AWS Contracting Party specified in Section 12 below (also referred to as "**AWS**," "**we**," "**us**," or "**our**") and you or the entity you represent ("**you**" or "**your**"). This Agreement takes effect when you click an "I Accept" button or check box presented with these terms or, if earlier, when you use any of the Services (the "**Effective Date**"). You represent to us that you are lawfully able to enter into contracts (e.g., you are not a minor). If you are entering into this Agreement for an entity, such as the company you work for, you represent to us that you have legal authority to bind that entity. Please see Section 12 for definitions of certain capitalized terms used in this Agreement.

<https://aws.amazon.com/agreement/>.

## AWS Service Terms

**Last Updated: November 15, 2024**

### 1. Universal Service Terms (Applicable to All Services)

The Service Terms below govern your use of the Services. Capitalized terms used in these Service Terms but not defined below are defined in the [AWS Customer Agreement](#) or other agreement with us governing your use of the Services (the "Agreement"). For purposes of these Service Terms, "Your Content" includes any "Company Content" and any "Customer Content," and "AWS Content" includes "Amazon Properties."

<https://aws.amazon.com/service-terms/>.

139. Customers' access to and use of Prime Video Direct products and services is governed at least by the Prime Video Direct Digital License Agreement and the Prime Video Direct Terms of Use. *See, e.g., Prime Video Direct Digital License Agreement,*

*[https://videodirect.amazon.com/home/agreement?ref\\_=avd\\_hm\\_ft\\_la](https://videodirect.amazon.com/home/agreement?ref_=avd_hm_ft_la); Prime Video Direct and Video Central Program Site Terms of Use,*

*[https://videodirect.amazon.com/home/help?topicId=G201985470&ref\\_=avd\\_sup\\_G201985470](https://videodirect.amazon.com/home/help?topicId=G201985470&ref_=avd_sup_G201985470).*

140. Defendants condition customers' access to and use of AWS Elemental and Prime Video Direct products and services upon the customers' performance of certain steps outlined in

applicable user, admin, programming, and developer guides and other technical documentation, such as those available at <https://docs.aws.amazon.com/mediaconvert/>. For example, pursuant to the AWS Service Terms, customers “must comply with current technical documentation applicable to the Services (including applicable user, admin, and developer guides) posted on the AWS Site at <https://docs.aws.amazon.com/index.html> (and any successor or related locations designated by us).” *AWS Service Terms*, <https://aws.amazon.com/service-terms/>. Thus, where Defendants’ control a third party’s use of the claimed system for encoding video data, those actions are attributable to Defendants.

141. In addition to Defendants’ direct infringement via control over a third parties’ use of the Accused Encoding Servers and Services, Defendants also have induced and continue to induce infringement of claims of the ’195 patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claim 1, by encouraging their customers to use the Accused Encoding Servers and Services, including by using the claimed systems, to encode third-party media data. Using the Accused Encoding Servers and Services constitutes direct infringement, literally or under the doctrine of equivalents, of one or more claims of the ’195 patent by Defendants’ customers. *See* Ex. 9. Defendants’ acts of encouragement include: providing to third parties and intending that third parties purchase and use the Accused Encoding Servers and Services, and providing instructions to do so; and purposefully and voluntarily placing the Accused Encoding Servers and Services in the stream of commerce with the expectation that they will be used by customers in the United States including in the Eastern District of Virginia. Furthermore, Defendants have actual knowledge of how the Accused Encoding Servers and Services operate, including how use infringes the ’195 patent. Defendants have undertaken these acts of encouragement with the specific intent that customers use such Accused Encoding Servers and

Services as intended by Defendants in a manner that infringes the asserted claims of the '195 patent.

142. Defendants knowingly and intentionally encourage at least customers of Defendants' AWS Elemental and Prime Video Direct products and services to directly infringe the '195 patent. For example, Defendants provide AWS Elemental MediaConvert encoding instructions to customers so that such customers will use AWS Elemental MediaConvert to encode media data in an infringing manner, and Defendants provide Prime Video Direct encoding instructions to customers so that such customers will use Prime Video Direct to encode media data in an infringing manner. Thus, those third parties directly infringe the '195 patent, as described, for example, in Exhibit 9.

143. For example, Defendants provide AWS Elemental MediaConvert, which allows customers to “[p]rocess video files to prepare on-demand content for distribution or archiving.” *See* <https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#) .

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

144. Defendants provide customers with instructions for how to use AWS Elemental MediaConvert and Prime Video Direct in the form of user guides, tutorials, and other technical documents. *See, e.g.*, <https://docs.aws.amazon.com/mediaconvert/>; [https://videodirect.amazon.com/home/help?topicId=G202013390&ref\\_=avd\\_sup\\_G202013390](https://videodirect.amazon.com/home/help?topicId=G202013390&ref_=avd_sup_G202013390). For example, with respect to AWS Elemental MediaConvert, Defendants provide customers with an application program interface (API) reference guide.

## Getting Started with MediaConvert Using the API

PDF

This section shows you how to get started with the MediaConvert API to transcode media files using API calls.

### To get set up to use the AWS Elemental MediaConvert API

1. Set up permissions:

- **Permissions that the AWS Elemental MediaConvert service can assume on your behalf.** These allow access to your Amazon S3 buckets and to Amazon API Gateway. For instructions, see [Set Up IAM Permissions](#) in the *AWS Elemental MediaConvert User Guide*.
- **Your [Signature Version 4](#) authentication for the requests that you send to AWS.** When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs, these tools automatically sign the requests for you with the access key and secret key that you specify in your client configuration.

2. Set up S3 file locations.

The service reads your input files from and saves your output files to Amazon S3 buckets. For instructions on creating these buckets, see [Create Storage for Files](#) in the *AWS Elemental MediaConvert User Guide*.

3. **Send your transcoding requests.**

Send your requests to manage transcoding jobs, queues, job templates, and presets. For more information, see the following:

- For information about setting up your transcoding job, see the [Creating Your Job Specification](#) topic of this guide.

<https://docs.aws.amazon.com/mediaconvert/latest/apireference/getting-started.html>.

145. Defendants additionally provide customers with a user guide including, among other instructions, instructions to create a “job” via AWS Elemental MediaConvert, which “does the work of transcoding one or more media files.”

## Creating a job

A job does the work of transcoding one or more media files. When you create a job, you specify the input files and settings, the output files and settings, and any other related job settings.

MediaConvert gets the input from the Amazon S3, HTTP, or HTTPS location that you specify. Then MediaConvert transcodes and writes to the output location that you specify in the job's output group settings.

### To create a job

1. Go to the [Jobs](#) page in the MediaConvert console.
2. Choose **Create job**.
3. On the **Create job** page, specify your job settings. Include at least one input file and at least one output group. For detailed information, see [Tutorial: Configuring job settings](#).

Note: Make sure that you select the same AWS Region for your job and your file storage.

4. Specify your IAM role that you created as part of the [Setting up IAM permissions](#) process earlier under **Job settings, AWS integration**.
5. Choose **Create**.

For information about tracking the status of your job, see [Using EventBridge with AWS Elemental MediaConvert](#).

For information about the file names and paths for your job outputs, see [Output file names and paths](#).

6. Optionally, if you don't want to keep the transcoded files that you generate during this tutorial, delete them from Amazon S3 to avoid incurring storage charges. For more information, see [Deleting objects Amazon S3 User Guide](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/getting-started.html>.

146. On information and belief, Defendants also induce infringement by, in some instances, providing on-site servers and encoders, for example, for Elemental Live customers. *See, e.g.*, <https://aws.amazon.com/elemental-live/features/>.

147. Customers' use of AWS Elemental MediaConvert and Prime Video Direct to encode media data constitutes direct infringement of the '195 patent, as described, for example,



at Exhibit 9. Defendants' customers directly infringe by using the Accused Encoding Servers and Services. Defendants knowingly induce such infringement by providing the Accused Encoding Servers and Services and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, Defendants know that the induced conduct would constitute infringement—and intend that infringement at the time of committing the aforementioned affirmative acts, such that the acts and conduct have been and continue to be committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

148. Defendants' infringement of the '195 patent is willful, at least since Defendants' knowledge of its infringement as described above.

149. Defendants' acts of infringement have caused and continue to cause damage to DivX, and DivX is entitled to recover from Defendants damages sustained as a result of Defendants' infringement of the '195 patent, but in no event less than a reasonable royalty.

150. Under 35 U.S.C. § 287, for infringement of the '195 patent's encoding system claims, including claim 1, DivX is entitled to past damages. DivX is aware of no marking obligations that exist with respect to its products or its licensees' products. In particular, DivX is aware of no licensed encoding system that practices the '195 patent.

**COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 11,611,785 (ALL DEFENDANTS)**

151. The allegations set forth in paragraphs 1 through 150 of this Complaint are incorporated by reference as though fully set forth herein.

152. Pursuant to 35 U.S.C. § 282, the '785 patent is presumed valid.

153. On information and belief, Defendants have directly infringed and continue to

directly infringe one or more method claims of the '785 patent, including but not limited to claim 1, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by using in the United States the Accused Encoding Servers and Services.

154. For example, AWS Elemental MediaConvert and Amazon Prime Video Direct each perform all limitations of claim 1 of the '785 patent. *See* Ex. 10. AWS Elemental MediaConvert and Amazon Prime Video Direct are exemplary Accused Encoding Servers and Services and perform the claimed method for encoding source content as a plurality of alternative video streams and adaptively streaming the plurality of alternative video streams, each having a bitrate.

155. Defendants have directly infringed and continue to directly infringe the '785 patent by (1) using in the United States the Accused Encoding Servers and Services, including using the Accused Encoding Servers and Services to encode Amazon Prime video data, and (2) using the Accused Encoding Servers and Services to encode third-party media data and exerting control over AWS and Prime Video Direct services provided to third parties. For example, Defendants provide AWS Elemental MediaConvert as a service to customers whereby Defendants encode third-party data:

# **AWS Elemental MediaConvert?**

AWS Elemental MediaConvert transcodes file-based content into live stream assets quickly and reliably. Convert content libraries of any size for broadcast and streaming. MediaConvert combines advanced video and audio capabilities with a web services interface and pay-as-you-go pricing. With cloud-based transcoding, you can focus on delivering compelling media experiences and worry less about maintaining video processing infrastructure.

<https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#) .

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

156. The descriptions and infringement theories in Exhibit 10 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case

157. On information and belief, Defendants have directly infringed and continue to directly infringe the '785 patent by directing and controlling customers' use of the Accused Encoding Servers and Services. For example, customers' "access to and use of" AWS Elemental products and services is governed by at least the AWS Customer Agreement and the AWS Service Terms, each excerpted below:

## AWS Customer Agreement

\*\*For additional information related to each AWS Contracting Party, see the [AWS Contracting Party FAQs](#).

\*Please note that as of January 1, 2024, customers located in Türkiye contract with our Türkiye based AWS Contracting Party, as provided in Section 12. See the [AWS Turkey FAQs](#) for more information.

**Last Updated: May 17, 2024**

[See What's Changed](#)

This AWS Customer Agreement (this "**Agreement**") contains the terms and conditions that govern your access to and use of the Services (as defined below) and is an agreement between the applicable AWS Contracting Party specified in Section 12 below (also referred to as "**AWS**," "**we**," "**us**," or "**our**") and you or the entity you represent ("**you**" or "**your**"). This Agreement takes effect when you click an "I Accept" button or check box presented with these terms or, if earlier, when you use any of the Services (the "**Effective Date**"). You represent to us that you are lawfully able to enter into contracts (e.g., you are not a minor). If you are entering into this Agreement for an entity, such as the company you work for, you represent to us that you have legal authority to bind that entity. Please see Section 12 for definitions of certain capitalized terms used in this Agreement.

<https://aws.amazon.com/agreement/>.

## AWS Service Terms

**Last Updated: November 15, 2024**

### 1. Universal Service Terms (Applicable to All Services)

The Service Terms below govern your use of the Services. Capitalized terms used in these Service Terms but not defined below are defined in the [AWS Customer Agreement](#) or other agreement with us governing your use of the Services (the "Agreement"). For purposes of these Service Terms, "Your Content" includes any "Company Content" and any "Customer Content," and "AWS Content" includes "Amazon Properties."

<https://aws.amazon.com/service-terms/>.

158. Customers' access to and use of Prime Video Direct products and services is governed at least by the Prime Video Direct Digital License Agreement and the Prime Video Direct Terms of Use. *See, e.g., Prime Video Direct Digital License Agreement,*

*[https://videodirect.amazon.com/home/agreement?ref\\_=avd\\_hm\\_ft\\_la](https://videodirect.amazon.com/home/agreement?ref_=avd_hm_ft_la); Prime Video Direct and Video Central Program Site Terms of Use,*

*[https://videodirect.amazon.com/home/help?topicId=G201985470&ref\\_=avd\\_sup\\_G201985470](https://videodirect.amazon.com/home/help?topicId=G201985470&ref_=avd_sup_G201985470).*

159. Defendants condition customers' access to and use of AWS Elemental and Prime Video Direct products and services upon the customers' performance of certain steps outlined in

applicable user, admin, programming, and developer guides and other technical documentation, such as those available at <https://docs.aws.amazon.com/mediaconvert/>. For example, pursuant to the AWS Service Terms, customers “must comply with current technical documentation applicable to the Services (including applicable user, admin, and developer guides) posted on the AWS Site at <https://docs.aws.amazon.com/index.html> (and any successor or related locations designated by us).” *AWS Service Terms*, <https://aws.amazon.com/service-terms/>. Thus, where Defendants’ control a third party’s use of the claimed method for encoding source data, those actions are attributable to Defendants.

160. In addition to Defendants’ direct infringement via control over a third parties’ use of the Accused Encoding Servers and Services, Defendants also have induced and continue to induce infringement of claims of the ’785 patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claim 1, by encouraging their customers to use the Accused Encoding Servers and Services, including by performing the claimed methods, to encode third-party media data. Using the Accused Encoding Servers and Services constitutes direct infringement, literally or under the doctrine of equivalents, of one or more claims of the ’785 patent by Defendants’ customers. *See* Ex. 10. Defendants’ acts of encouragement include: providing to third parties and intending that third parties purchase and use the Accused Encoding Servers and Services, and providing instructions to do so; and purposefully and voluntarily placing the Accused Encoding Servers and Services in the stream of commerce with the expectation that they will be used by customers in the United States including in the Eastern District of Virginia. Furthermore, Defendants have actual knowledge of how the Accused Encoding Servers and Services operate, including how use infringes the ’785 patent. Defendants have undertaken these acts of encouragement with the specific intent that customers use such Accused Encoding Servers and

Services as intended by Defendants in a manner that infringes the asserted claims of the '785 patent.

161. Defendants knowingly and intentionally encourage at least customers of Defendants' AWS Elemental and Prime Video Direct products and services to directly infringe the '785 patent. For example, Defendants provide AWS Elemental MediaConvert encoding instructions to customers so that such customers will use AWS Elemental MediaConvert to encode media data in an infringing manner, and Defendants provide Prime Video Direct encoding instructions to customers so that such customers will use Prime Video Direct to encode media data in an infringing manner. Thus, those third parties directly infringe the '785 patent, as described, for example, in Exhibit 10.

162. For example, Defendants provide AWS Elemental MediaConvert, which allows customers to “[p]rocess video files to prepare on-demand content for distribution or archiving.” *See* <https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#) .

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

163. Defendants provide customers with instructions for how to use AWS Elemental MediaConvert and Prime Video Direct in the form of user guides, tutorials, and other technical documents. *See, e.g.*, <https://docs.aws.amazon.com/mediaconvert/>; [https://videodirect.amazon.com/home/help?topicId=G202013390&ref\\_=avd\\_sup\\_G202013390](https://videodirect.amazon.com/home/help?topicId=G202013390&ref_=avd_sup_G202013390). For example, with respect to AWS Elemental MediaConvert, Defendants provide customers with an application program interface (API) reference guide.



## Getting Started with MediaConvert Using the API

PDF

This section shows you how to get started with the MediaConvert API to transcode media files using API calls.

### To get set up to use the AWS Elemental MediaConvert API

1. Set up permissions:

- **Permissions that the AWS Elemental MediaConvert service can assume on your behalf.** These allow access to your Amazon S3 buckets and to Amazon API Gateway. For instructions, see [Set Up IAM Permissions](#) in the *AWS Elemental MediaConvert User Guide*.
- **Your [Signature Version 4](#) authentication for the requests that you send to AWS.** When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs, these tools automatically sign the requests for you with the access key and secret key that you specify in your client configuration.

2. Set up S3 file locations.

The service reads your input files from and saves your output files to Amazon S3 buckets. For instructions on creating these buckets, see [Create Storage for Files](#) in the *AWS Elemental MediaConvert User Guide*.

3. **Send your transcoding requests.**

Send your requests to manage transcoding jobs, queues, job templates, and presets. For more information, see the following:

- For information about setting up your transcoding job, see the [Creating Your Job Specification](#) topic of this guide.

<https://docs.aws.amazon.com/mediaconvert/latest/apireference/getting-started.html>.

164. Defendants additionally provide customers with a user guide including, among other instructions, instructions to create a “job” via AWS Elemental MediaConvert, which “does the work of transcoding one or more media files.”

## Creating a job

A job does the work of transcoding one or more media files. When you create a job, you specify the input files and settings, the output files and settings, and any other related job settings.

MediaConvert gets the input from the Amazon S3, HTTP, or HTTPS location that you specify. Then MediaConvert transcodes and writes to the output location that you specify in the job's output group settings.

### To create a job

1. Go to the [Jobs](#) page in the MediaConvert console.
2. Choose **Create job**.
3. On the **Create job** page, specify your job settings. Include at least one input file and at least one output group. For detailed information, see [Tutorial: Configuring job settings](#).

Note: Make sure that you select the same AWS Region for your job and your file storage.

4. Specify your IAM role that you created as part of the [Setting up IAM permissions](#) process earlier under **Job settings, AWS integration**.
5. Choose **Create**.

For information about tracking the status of your job, see [Using EventBridge with AWS Elemental MediaConvert](#).

For information about the file names and paths for your job outputs, see [Output file names and paths](#).

6. Optionally, if you don't want to keep the transcoded files that you generate during this tutorial, delete them from Amazon S3 to avoid incurring storage charges. For more information, see [Deleting objects Amazon S3 User Guide](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/getting-started.html>.

165. On information and belief, Defendants also induce infringement by, in some instances, providing on-site servers and encoders, for example, for Elemental Live customers. *See, e.g.*, <https://aws.amazon.com/elemental-live/features/>.

166. Customers' use of AWS Elemental MediaConvert and Amazon Prime Video Direct to encode media data constitutes direct infringement of the '785 patent, as described, for

example, at Exhibit 10. Defendants' customers directly infringe by using the Accused Encoding Servers and Services. Defendants knowingly induce such infringement by providing the Accused Encoding Servers and Services and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, Defendants know that the induced conduct would constitute infringement—and intend that infringement at the time of committing the aforementioned affirmative acts, such that the acts and conduct have been and continue to be committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

167. Defendants' infringement of the '785 patent is willful, at least since Defendants' knowledge of its infringement as described above.

168. Defendants' acts of infringement have caused and continue to cause damage to DivX, and DivX is entitled to recover from Defendants damages sustained as a result of Defendants' infringement of the '785 patent, but in no event less than a reasonable royalty.

169. DivX is entitled to past damages for infringement of the '785 patent's method claims.

**COUNT V: INFRINGEMENT OF U.S. PATENT NO. 10,542,303 (ALL DEFENDANTS)**

170. The allegations set forth in paragraphs 1 through 169 of this Complaint are incorporated by reference as though fully set forth herein.

171. Pursuant to 35 U.S.C. § 282, the '303 patent is presumed valid.

172. On information and belief, Defendants have directly infringed and continue to directly infringe one or more claims of the '303 patent, including but not limited to claims 1 and 16, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making,

using, offering for sale, selling, and/or importing into the United States the Accused Encoding Servers and Services.

173. For example, Defendants' server systems used to encode and package video data for content offered on, e.g., the Amazon Prime Video streaming platform, through Amazon Prime Video Direct and/or through AWS Elemental MediaConvert and AWS Elemental MediaPackage perform all limitations of claim 1 of the '303 patent. *See* Ex. 11. AWS Elemental MediaConvert, AWS Elemental MediaPackage, and Amazon Prime Video Direct are exemplary Accused Encoding Servers and Services and provide the claimed non-transitory machine readable medium containing processor instructions.

174. Defendants have directly infringed and continue to directly infringe the '303 patent by (1) making, using, selling, offering to sell, and/or importing into the United States the Accused Encoding Servers and Services, including using the Accused Encoding Servers and Services to encode and package Amazon Prime video data, and (2) using the Accused Encoding Servers and Services to encode and package third-party media data and exerting control over AWS and Prime Video Direct services provided to third parties. For example, Defendants provide AWS Elemental MediaConvert as a service to customers whereby Defendants encode third-party data:

# **AWS Elemental MediaConvert?**

AWS Elemental MediaConvert transcodes file-based content into live stream assets quickly and reliably. Convert content libraries of any size for broadcast and streaming. MediaConvert combines advanced video and audio capabilities with a web services interface and pay-as-you-go pricing. With cloud-based transcoding, you can focus on delivering compelling media experiences and worry less about maintaining video processing infrastructure.

<https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

175. The descriptions and infringement theories in Exhibit 11 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case

176. On information and belief, Defendants have directly infringed and continue to directly infringe the '303 patent by directing and controlling customers' use of the Accused Encoding Servers and Services. For example, customers' "access to and use of" AWS Elemental products and services is governed by at least the AWS Customer Agreement and the AWS Service Terms, each excerpted below:

## AWS Customer Agreement

\*\*For additional information related to each AWS Contracting Party, see the [AWS Contracting Party FAQs](#).

\*Please note that as of January 1, 2024, customers located in Türkiye contract with our Türkiye based AWS Contracting Party, as provided in Section 12. See the [AWS Turkey FAQs](#) for more information.

**Last Updated: May 17, 2024**

[See What's Changed](#)

This AWS Customer Agreement (this "**Agreement**") contains the terms and conditions that govern your access to and use of the Services (as defined below) and is an agreement between the applicable AWS Contracting Party specified in Section 12 below (also referred to as "**AWS**," "**we**," "**us**," or "**our**") and you or the entity you represent ("**you**" or "**your**"). This Agreement takes effect when you click an "I Accept" button or check box presented with these terms or, if earlier, when you use any of the Services (the "**Effective Date**"). You represent to us that you are lawfully able to enter into contracts (e.g., you are not a minor). If you are entering into this Agreement for an entity, such as the company you work for, you represent to us that you have legal authority to bind that entity. Please see Section 12 for definitions of certain capitalized terms used in this Agreement.

<https://aws.amazon.com/agreement/>.

## AWS Service Terms

**Last Updated: November 15, 2024**

### 1. Universal Service Terms (Applicable to All Services)

The Service Terms below govern your use of the Services. Capitalized terms used in these Service Terms but not defined below are defined in the [AWS Customer Agreement](#) or other agreement with us governing your use of the Services (the "Agreement"). For purposes of these Service Terms, "Your Content" includes any "Company Content" and any "Customer Content," and "AWS Content" includes "Amazon Properties."

<https://aws.amazon.com/service-terms/>.

177. Customers' access to and use of Prime Video Direct products and services is governed at least by the Prime Video Direct Digital License Agreement and the Prime Video Direct Terms of Use. *See, e.g., Prime Video Direct Digital License Agreement,*

*[https://videodirect.amazon.com/home/agreement?ref\\_=avd\\_hm\\_ft\\_la](https://videodirect.amazon.com/home/agreement?ref_=avd_hm_ft_la); Prime Video Direct and Video Central Program Site Terms of Use,*

*[https://videodirect.amazon.com/home/help?topicId=G201985470&ref\\_=avd\\_sup\\_G201985470](https://videodirect.amazon.com/home/help?topicId=G201985470&ref_=avd_sup_G201985470).*

178. Defendants condition customers' access to and use of AWS Elemental and Prime Video Direct products and services upon the customers' performance of certain steps outlined in

applicable user, admin, programming, and developer guides and other technical documentation, such as those available at <https://docs.aws.amazon.com/mediaconvert/>. For example, pursuant to the AWS Service Terms, customers “must comply with current technical documentation applicable to the Services (including applicable user, admin, and developer guides) posted on the AWS Site at <https://docs.aws.amazon.com/index.html> (and any successor or related locations designated by us).” *AWS Service Terms*, <https://aws.amazon.com/service-terms/>. Thus, where Defendants’ control a third party’s use of the claimed non-transitory machine readable medium containing processor instructions, those actions are attributable to Defendants.

179. In addition to Defendants’ direct infringement via control over a third parties’ use of the Accused Encoding Servers and Services, Defendants also have induced and continue to induce infringement of claims of the ’303 patent pursuant to 35 U.S.C. § 271(b), including without limitation at least claim 1, by encouraging their customers to use the Accused Encoding Servers and Services, including by using the claimed systems, to encode third-party media data. Using the Accused Encoding Servers and Services constitutes direct infringement, literally or under the doctrine of equivalents, of one or more claims of the ’303 patent by Defendants’ customers. *See* Ex. 11. Defendants’ acts of encouragement include: providing to third parties and intending that third parties purchase and use the Accused Encoding Servers and Services, and providing instructions to do so; and purposefully and voluntarily placing the Accused Encoding Servers and Services in the stream of commerce with the expectation that they will be used by customers in the United States including in the Eastern District of Virginia. Furthermore, Defendants have actual knowledge of how the Accused Encoding Servers and Services operate, including how use infringes the ’303 patent. Defendants have undertaken these acts of encouragement with the specific intent that customers use such Accused Encoding Servers and



Services as intended by Defendants in a manner that infringes the asserted claims of the '303 patent.

180. Defendants knowingly and intentionally encourage at least customers of Defendants' AWS Elemental and Prime Video Direct products and services to directly infringe the '303 patent. For example, Defendants provide AWS Elemental MediaConvert and MediaPackage encoding and packaging instructions to customers so that such customers will use AWS Elemental MediaConvert and MediaPackage to encode and package media data in an infringing manner, and Defendants provide Prime Video Direct encoding and packaging instructions to customers so that such customers will use Prime Video Direct to encode and package media data in an infringing manner. Thus, those third parties directly infringe the '303 patent, as described, for example, in Exhibit 11.

181. For example, Defendants provide AWS Elemental MediaConvert, which allows customers to “[p]rocess video files to prepare on-demand content for distribution or archiving.” *See* <https://aws.amazon.com/mediaconvert/>.

## What is AWS Elemental MediaConvert?

[PDF](#) | [RSS](#)

AWS Elemental MediaConvert is a file-based video processing service that provides scalable video processing for content owners and distributors with media libraries of any size.

MediaConvert offers advanced features that enable premium content experiences, including:

- Professional broadcast codecs that support increased bit depth and HDR content creation
- Still graphic overlays
- Advanced audio
- Digital rights management (DRM)
- Closed captioning support

MediaConvert offers support for various input formats and adaptive bitrate (ABR) packaging output formats for delivering high-quality content from a range of sources onto primary and multiscreen devices.

For simple use cases, you can set up a MediaConvert transcoding job in a few steps. For instructions, see [Getting started with MediaConvert](#) .

<https://docs.aws.amazon.com/mediaconvert/latest/ug/what-is.html>.

182. Defendants provide customers with instructions for how to use AWS Elemental MediaConvert and MediaPackage and Prime Video Direct in the form of user guides, tutorials, and other technical documents. *See, e.g.*, <https://docs.aws.amazon.com/mediaconvert/>; [https://videodirect.amazon.com/home/help?topicId=G202013390&ref\\_=avd\\_sup\\_G202013390](https://videodirect.amazon.com/home/help?topicId=G202013390&ref_=avd_sup_G202013390). For example, with respect to AWS Elemental MediaConvert, Defendants provide customers with an application program interface (API) reference guide.

## Getting Started with MediaConvert Using the API

PDF

This section shows you how to get started with the MediaConvert API to transcode media files using API calls.

### To get set up to use the AWS Elemental MediaConvert API

1. Set up permissions:

- **Permissions that the AWS Elemental MediaConvert service can assume on your behalf.** These allow access to your Amazon S3 buckets and to Amazon API Gateway. For instructions, see [Set Up IAM Permissions](#) in the *AWS Elemental MediaConvert User Guide*.
- **Your [Signature Version 4](#) authentication for the requests that you send to AWS.** When you use the AWS Command Line Interface (AWS CLI) or one of the AWS SDKs, these tools automatically sign the requests for you with the access key and secret key that you specify in your client configuration.

2. Set up S3 file locations.

The service reads your input files from and saves your output files to Amazon S3 buckets. For instructions on creating these buckets, see [Create Storage for Files](#) in the *AWS Elemental MediaConvert User Guide*.

3. **Send your transcoding requests.**

Send your requests to manage transcoding jobs, queues, job templates, and presets. For more information, see the following:

- For information about setting up your transcoding job, see the [Creating Your Job Specification](#) topic of this guide.

<https://docs.aws.amazon.com/mediaconvert/latest/apireference/getting-started.html>.

183. Defendants additionally provide customers with a user guide including, among other instructions, instructions to create a “job” via AWS Elemental MediaConvert, which “does the work of transcoding one or more media files.”

## Creating a job

A job does the work of transcoding one or more media files. When you create a job, you specify the input files and settings, the output files and settings, and any other related job settings.

MediaConvert gets the input from the Amazon S3, HTTP, or HTTPS location that you specify. Then MediaConvert transcodes and writes to the output location that you specify in the job's output group settings.

### To create a job

1. Go to the [Jobs](#) page in the MediaConvert console.
2. Choose **Create job**.
3. On the **Create job** page, specify your job settings. Include at least one input file and at least one output group. For detailed information, see [Tutorial: Configuring job settings](#).

Note: Make sure that you select the same AWS Region for your job and your file storage.

4. Specify your IAM role that you created as part of the [Setting up IAM permissions](#) process earlier under **Job settings, AWS integration**.
5. Choose **Create**.

For information about tracking the status of your job, see [Using EventBridge with AWS Elemental MediaConvert](#).

For information about the file names and paths for your job outputs, see [Output file names and paths](#).

6. Optionally, if you don't want to keep the transcoded files that you generate during this tutorial, delete them from Amazon S3 to avoid incurring storage charges. For more information, see [Deleting objects Amazon S3 User Guide](#).

<https://docs.aws.amazon.com/mediaconvert/latest/ug/getting-started.html>.

184. On information and belief, Defendants also induce infringement by, in some instances, providing on-site servers and encoders, for example, for Elemental Live customers. See, e.g., <https://aws.amazon.com/elemental-live/features/>.

185. Customers' use of Amazon Prime Video Direct and of AWS Elemental MediaConvert and MediaPackage to encode and package media data constitutes direct

infringement of the '303 patent, as described, for example, at Exhibit 11. Defendants' customers directly infringe by using the Accused Encoding Servers and Services. Defendants knowingly induce such infringement by providing the Accused Encoding Servers and Services and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, Defendants know that the induced conduct would constitute infringement—and intend that infringement at the time of committing the aforementioned affirmative acts, such that the acts and conduct have been and continue to be committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

186. Further, a current-generation Amazon Fire Stick 4K streaming video with the Amazon Prime Video streaming service satisfies all limitations of claim 16 of the '303 patent. *See* Ex. 12. The Amazon Prime Video streaming service is an exemplary Accused Streaming Service, and the Amazon Prime Video streaming service operating on an Amazon Fire Stick 4K (an exemplary Accused Video Device) provides a content decoder comprising a memory that contains a decoder application.

187. Amazon has directly infringed and continues to directly infringe claim 16 by making, using (e.g., when testing the Accused Video Devices and the Accused Streaming Services in the United States), offering to sell, selling, and/or importing into the United States the Accused Video Devices.



*See, e.g.*, Amazon Fire TV Stick 4K with AI-powered Fire TV Search, WiFi 6, stream over 1.5 million movies and shows, free & live TV, Amazon, <https://www.amazon.com/Amazon-Fire-TV-Stick-4K-streaming-device/dp/B0CJM1GNFQ/>.

188. The descriptions and infringement theories in Exhibit 12 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case.

189. On information and belief, Amazon has induced and continues to induce infringement of claims of the '303 patent pursuant to 35 U.S.C. § 271(b), including at least claim 16, by encouraging its customers and other third parties to make, use, offer to sell, sell, and/or import the claimed systems—for example, encouraging customers to install and/or use the Accused Streaming Services (e.g., Amazon Prime Video streaming service) on Accused Video Devices (e.g., Amazon Fire Stick 4K) or other consumer electronics devices. Amazon's inducing acts include: providing to third parties and intending that third parties install and/or use the

Accused Streaming Services on the Accused Video Devices and other consumer electronics devices, and providing instructions to do so; purposefully and voluntarily placing the Accused Streaming Services on Accused Video Devices and other consumer electronics devices in the stream of commerce with the expectation that customers will use those Accused Streaming Services in the United States including in the Eastern District of Virginia; providing, promoting, and/or selling components that enable and/or make use of the Accused Streaming Services and Accused Video Devices and other consumer electronics devices through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the Accused Streaming Services on the Accused Video Devices and other consumer electronics devices work, including how use infringes the '303 patent. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the '303 patent.

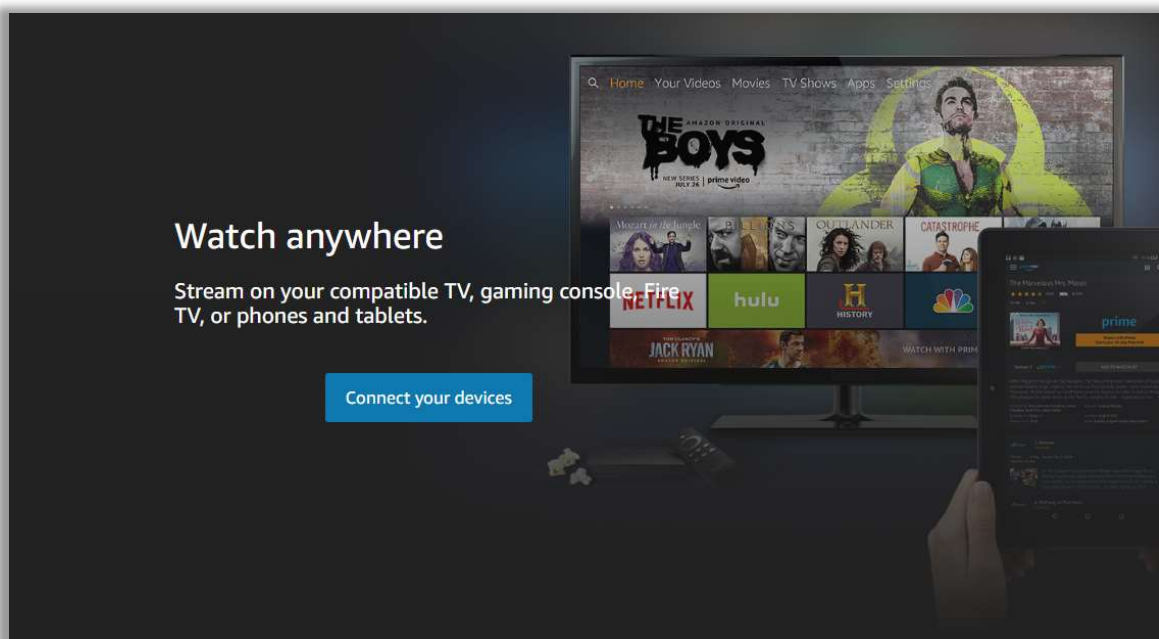
190. Amazon induces infringement when it provides to third parties and intends that third parties install, use, offer to sell, and/or sell the Accused Streaming Services on other consumer electronics devices, to provide the claimed playback device, including, for example, facilitating pre-installation of the Prime video streaming service on certain smart TVs and other devices. *See, e.g.*,

<https://www.amazon.com/gp/help/customer/display.html?nodeId=GKZQ3LY43DX7RGCF>.

191. Amazon knowingly and intentionally encourages third parties to directly infringe the '303 patent. For example, Amazon induces end users to download the Accused Streaming Services, such as the Amazon Prime Video application, with the intent that end users use the application to stream video to the Accused Video Devices or other consumer electronics devices. Thus, those third parties directly infringe the '303 patent, as described, for example, in Exhibit

12.

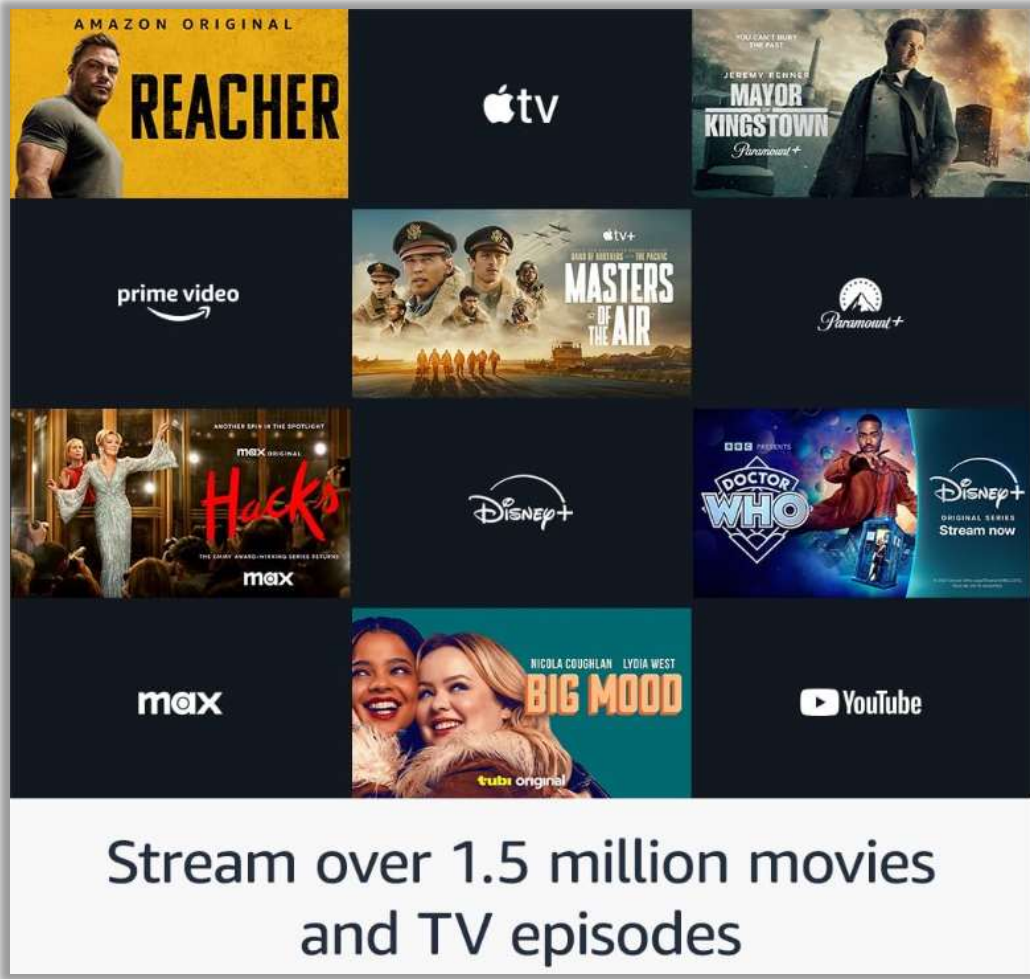
192. Amazon provides the streaming platform for its Prime Video streaming service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



See, e.g., [https://www.amazon.com/gp/video/getstarted/ref=sv\\_atv\\_5](https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5).

193. Amazon provides consumers with Amazon Accused Products for multimedia file playback received from Amazon’s Prime Video streaming platform.





<https://www.amazon.com/Amazon-Fire-TV-Stick-4K-streaming-device/dp/B0CJM1GNFQ/>.

194. Amazon provides instructions to consumers regarding how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the '303 patent:

### Amazon Fire TV Family



If you've never signed in on your Fire TV or Fire TV Stick, follow the steps below to get started. (Already registered? Begin at step 3):

1. Turn on the device.
2. Sign in with your Amazon account, or create an Amazon account to sign in with.
3. Press the home button on your remote.
4. Enjoy.

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).



**Fire tablet**

1. Sign in to your Amazon account on your Fire tablet.
2. If needed, register your device.
3. Open the Prime Video app, or go to the "Video" tab.
4. Enjoy.

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).



**Smart TV, Blu-ray player**

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
  - (1) Select "Sign in and start watching" and enter your Amazon account information.
  - (2) Choose "Register on the Amazon website" to get a 5–6 character code, then sign in to your Amazon account and enter your code.

[Sign in to your Amazon account and enter your code](#)

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).

195. Third parties, including Amazon customers, directly infringe by using the Accused Streaming Services, including on the Accused Video Devices, to stream video, thereby making and/or using the claimed content decoder. Amazon knowingly induces such infringement by providing the Accused Streaming Services for use on the Accused Video Devices and other consumer electronics devices and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, Amazon knows that the induced conduct would constitute infringement—and intends that infringement at the time of committing the aforementioned affirmative acts, such that the acts and conduct have been and continue to be

committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

196. Defendants' infringement of the '303 patent continues to be willful, at least since Defendants' knowledge of its infringement as described above.

197. Defendants' acts of infringement have caused and continue to cause damage to DivX, and DivX is entitled to recover from Defendants damages sustained as a result of Defendants' infringement of the Asserted Patents, but in no event less than a reasonable royalty.

198. DivX seeks damages from the date of this Complaint forward for Amazon's infringement of the '303 patent.

**COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 11,245,938 (AMAZON)**

199. The allegations set forth in paragraphs 1 through 198 of this Complaint are incorporated by reference as though fully set forth herein.

200. Pursuant to 35 U.S.C. § 282, the '938 patent is presumed valid.

201. On information and belief, Amazon has directly infringed and continues to directly infringe one or more claims of the '938 patent, including but not limited to claim 8, pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States certain Accused Products.

202. For example, a current-generation Amazon Fire Stick 4K streaming video with the Amazon Prime Video streaming service satisfies all limitations of claim 8 of the '938 patent. *See* Ex. 13. The Amazon Prime Video streaming service is an exemplary Accused Streaming Service, and the Amazon Prime Video streaming service operating on an Amazon Fire Stick 4K (an exemplary Accused Video Device) provides the claimed content decoder.

203. Amazon has directly infringed and continues to directly infringe claim 8 by making, using (e.g., when testing the Accused Video Devices and the Accused Streaming Services in the United States), offering to sell, selling, and/or importing into the United States the Accused Video Devices.



*See, e.g.,* Amazon Fire TV Stick 4K with AI-powered Fire TV Search, WiFi 6, stream over 1.5 million movies and shows, free & live TV, Amazon, <https://www.amazon.com/Amazon-Fire-TV-Stick-4K-streaming-device/dp/B0CJM1GNFQ/>.

204. The descriptions and infringement theories in Exhibit 13 are preliminary and based on publicly available information. DivX expects to further develop infringement evidence after obtaining discovery from Defendants in the course of this case.

205. On information and belief, Amazon has induced and continues to induce infringement of claims of the '938 patent pursuant to 35 U.S.C. § 271(b), including at least claim 8, by encouraging its customers and other third parties to make, use, offer to sell, sell, and/or

import the claimed systems—for example, encouraging customers to install and/or use the Accused Streaming Services (e.g., Amazon Prime Video streaming service) on Accused Video Devices (e.g., Amazon Fire Stick 4K) or other consumer electronics devices. Amazon’s inducing acts include: providing to third parties and intending that third parties install and/or use the Accused Streaming Services on the Accused Video Devices and other consumer electronics devices, and providing instructions to do so; purposefully and voluntarily placing the Accused Streaming Services on Accused Video Devices and other consumer electronics devices in the stream of commerce with the expectation that customers will use those Accused Streaming Services in the United States including in the Eastern District of Virginia; providing, promoting, and/or selling components that enable and/or make use of the Accused Streaming Services and Accused Video Devices and other consumer electronics devices through its own and third-party media platforms, including websites and television. Furthermore, Amazon has actual knowledge of how the Accused Streaming Services on the Accused Video Devices and other consumer electronics devices work, including how use infringes the ’938 patent. Amazon has undertaken these acts of encouragement with the specific intent that end-users use such Accused Products as intended by Amazon in a manner that infringes the asserted claims of the ’938 patent.

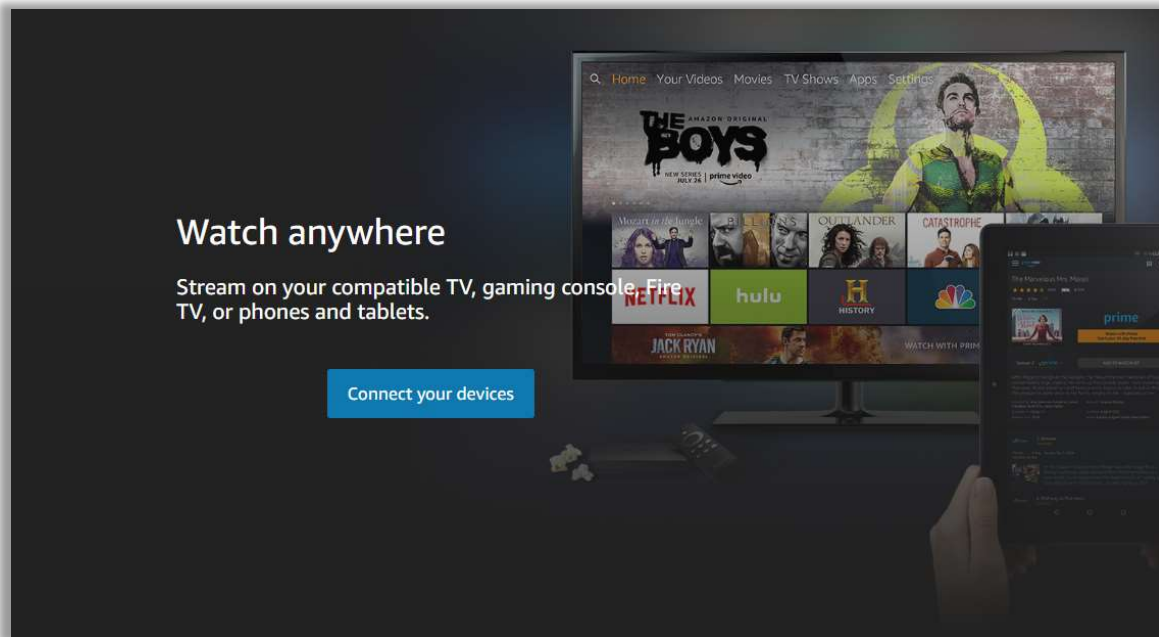
206. Amazon induces infringement when it provides to third parties and intends that third parties install, use, offer to sell, and/or sell the Accused Streaming Services on other consumer electronics devices, to provide the claimed playback device, including, for example, facilitating pre-installation of the Prime video streaming service on certain smart TVs and other devices. *See, e.g.,*

<https://www.amazon.com/gp/help/customer/display.html?nodeId=GKZQ3LY43DX7RGCF>.

207. Amazon knowingly and intentionally encourages third parties to directly infringe

the '938 patent. For example, Amazon induces end users to download the Accused Streaming Services, such as the Amazon Prime Video application, with the intent that end users use the application to stream video to the Accused Video Devices or other consumer electronics devices. Thus, those third parties directly infringe the '938 patent, as described, for example, in Exhibit 13.

208. Amazon provides the streaming platform for its Prime Video streaming service, which allows its consumers to “[w]atch anywhere” and “[s]tream on your compatible TV, gaming console, Fire TV, or phones and tablets.”



See, e.g., [https://www.amazon.com/gp/video/getstarted/ref=sv\\_atv\\_5](https://www.amazon.com/gp/video/getstarted/ref=sv_atv_5).

209. Amazon provides consumers with Amazon Accused Products for multimedia file playback received from Amazon’s Prime Video streaming platform.

Stream over 1.5 million movies and TV episodes

<https://www.amazon.com/Amazon-Fire-TV-Stick-4K-streaming-device/dp/B0CJM1GNFQ/>.

210. Amazon provides instructions to consumers regarding how to access the Prime Video streaming platform and thereby induces consumers to infringe the claims of the '938 patent:

### Amazon Fire TV Family

If you've never signed in on your Fire TV or Fire TV Stick, follow the steps below to get started. (Already registered? Begin at step 3):

1. Turn on the device.
2. Sign in with your Amazon account, or create an Amazon account to sign in with.
3. Press the home button on your remote.
4. Enjoy.

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).



**Fire tablet**

1. Sign in to your Amazon account on your Fire tablet.
2. If needed, register your device.
3. Open the Prime Video app, or go to the "Video" tab.
4. Enjoy.

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).



**Smart TV, Blu-ray player**

1. Open the app store to download, install, and open the Prime Video app.
2. Register your device—here are two ways:
  - (1) Select "Sign in and start watching" and enter your Amazon account information.
  - (2) Choose "Register on the Amazon website" to get a 5–6 character code, then sign in to your Amazon account and enter your code.

[Sign in to your Amazon account and enter your code](#)

[https://www.amazon.com/gp/video/splash/device\\_linking](https://www.amazon.com/gp/video/splash/device_linking).

211. Third parties, including Amazon customers, directly infringe by using the Accused Streaming Services, including on the Accused Video Devices, to stream video, thereby making and/or using an infringing apparatus. Amazon knowingly induces such infringement by providing the Accused Streaming Services for use on the Accused Video Devices and other consumer electronics devices and instructions to enable and facilitate infringement as described above. At least as of the date of filing of this Complaint, Amazon knows that the induced conduct would constitute infringement—and intends that infringement at the time of committing the aforementioned affirmative acts, such that the acts and conduct have been and continue to be



committed with the specific intent to induce infringement—or deliberately avoided learning of the infringing circumstances at the time of committing these acts so as to be willfully blind to the infringement that was induced.

212. Amazon’s infringement of the ’938 patent is willful, at least since Amazon’s knowledge of its infringement as described above.

213. Amazon’s acts of infringement have caused and continue to cause damage to DivX, and DivX is entitled to recover from Amazon damages sustained as a result of Amazon’s infringement of the ’938 patent, but in no event less than a reasonable royalty.

214. DivX seeks damages from the date of this Complaint forward for Amazon’s infringement of the ’938 patent.

**JURY TRIAL DEMANDED**

DivX demands a trial by jury on all claims and issues so triable.

**PRAYER FOR RELIEF**

WHEREFORE, DivX respectfully requests that this Court:

A. Enter judgment that Amazon has infringed one or more claims of each of the Asserted Patents and continues to infringe those claims, and that Amazon’s infringement is willful at least on and after the date of this Complaint;

B. Enter judgment that AWS has infringed one or more claims of each of U.S. Patent Nos. 10,715,806, 9,955,195, 11,611,785, and 10,542,303 and continues to infringe those claims, and that AWS’s infringement is willful on and after the date of this Complaint;

C. Enter an order, pursuant to 35 U.S.C. § 284, awarding to DivX monetary relief in an amount adequate to compensate for Defendants’ infringement of the Asserted Patents, in an amount to be determined at trial, but not less than a reasonable royalty, as well as pre- and post-

judgment interest and costs and enhanced damages for Defendants' willful infringement of the Asserted Patents;

D. Enter an order that Defendants pay to DivX ongoing royalties in an amount to be determined for any infringement occurring after the date that judgment is entered;

E. Enter an order, pursuant to 35 U.S.C. § 285, declaring this to be an exceptional case and thereby awarding to DivX its reasonable attorneys' fees; and

F. Enter an order awarding to DivX such other and further relief, whether at law or in equity, that this Court seems just, equitable, and proper.

Dated: November 15, 2024

Respectfully submitted,

DIVX, LLC

By Counsel

/s/ R. Braxton Hill, IV

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