IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SOUND VIEW INNOVATIONS, LLC, Plaintiff, v. AMC NETWORKS, INC., AMC PREMIERE LLC, WE TV LLC, SHUDDER LLC, SUNDANCETV LLC, DIGITAL STORE LLC, IFC IN THEATERS LLC, AND IFC TV LLC, Defendants.	)	C.A. No. _____ **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Sound View Innovations, LLC ("Sound View"), for its Complaint for Patent Infringement against AMC Networks, Inc. ("AMC Networks"), AMC Premiere LLC ("AMC Premiere"), WE tv LLC ("WE tv"), Shudder LLC ("Shudder"), SundanceTV LLC ("SundanceTV"), Digital Store LLC ("Digital Store"), IFC In Theaters LLC ("IFC Films"), and IFC TV LLC ("IFC TV") (collectively "AMC"), alleges as follows:

INTRODUCTION

1. Sound View is an intellectual property licensing company with a patent portfolio including more than 550 active and pending patents worldwide, approximately 350 of which are active U.S. Patents. Those patents were developed by researchers at Alcatel Lucent ("Lucent") and its predecessors. Lucent was home to the world-renowned Bell Laboratories, which has a long and storied history of innovation. Researchers at Lucent's Bell Laboratories developed a wide variety of key innovations that have greatly enhanced the capabilities and utility of computer systems and networks. This has resulted in benefits such as better and more efficient computer

networking, computer security, and user experiences.

2. Patents enjoy the same fundamental protections as real property. Sound View, like any property owner, is entitled to insist that others respect its property and to demand compensation from those who take that property for their own use. AMC has used, and continues to use, Sound View's patents without authorization. Moreover, despite Sound View's repeated attempts to negotiate, AMC refuses to take a license though it continues to use Sound View's property.

NATURE OF THE CASE

3. This action arises under 35 U.S.C. § 271 for Defendants' infringement of Sound View's United States Patent Nos. 5,806,062 (the "'062 patent"), 6,708,213 (the "'213 patent"), 6,757,796 (the "'796 patent"), and 9,462,074 (the "'074 patent") (collectively the "Patents-In-Suit").

THE PARTIES

4. Plaintiff Sound View is a Delaware limited liability company with its principal place of business at 2001 Route 46, Waterview Plaza, Suite 310, Parsippany, New Jersey 07054.

5. On information and belief, Defendant AMC Networks is a Delaware corporation, with its principal place of business at 11 Penn Plaza, New York, New York 10001. AMC Networks may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. AMC Networks has numerous subsidiaries, including AMC Networks, AMC Premiere, WE tv, Shudder, SundanceTV, Digital Store, IFC Films, and IFC TV.

6. On information and belief, Defendant AMC Premiere is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. AMC Premiere may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. AMC Networks owns and

operates AMC Premiere. AMC Premiere operates a subscription multimedia streaming service called AMC Premiere.

7. On information and belief, Defendant WE tv is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. WE tv may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. We tv is a wholly owned subsidiary of AMC Networks. WE tv purports to control the website www.wetv.com, which offers multimedia streaming content live and on demand.

8. On information and belief, Defendant Shudder is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. Shudder may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. AMC Networks owns and operates Shudder. Shudder operates the website www.shudder.com and the Shudder subscription multimedia streaming service.

9. On information and belief, Defendant SundanceTV is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. SundanceTV may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. SundanceTV is a wholly owned subsidiary of AMC Networks. SundanceTV offers live and on demand multimedia streaming via the website www.sundancetv.com.

10. On information and belief, Defendant Digital Store is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. Digital Store may be served with process by serving its registered agent, Corporation Service

Company, 251 Little Falls Drive, Wilmington, Delaware 19808. AMC Networks owns and operates Digital Store. Digital Store purports to control the website www.sundancenow.com, and operates the subscription digital multimedia streaming service SundanceNow.

11. On information and belief, Defendant IFC Films is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. IFC Films may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. IFC Films is a wholly owned subsidiary of AMC Networks. IFC Films purports to control the website www.ifcfilms.com, and provides multimedia streaming content from at least three different distribution labels: ILF Films, Sundance Selects, and IFC Midnight.

12. On information and belief, Defendant IFC TV is a Delaware limited liability company, with its principal place of business at 11 Penn Plaza, New York, New York 10001. IFC TV may be served with process by serving its registered agent, Corporation Service Company, 251 Little Falls Drive, Wilmington, Delaware 19808. IFC TV is operated by AMC Networks. IFC TV offers live and on demand multimedia streaming content via its website www.ifc.com.

JURISDICTION AND VENUE

13. This action arises under the patent laws of the United States, including 35 U.S.C. § 271 *et seq.* The jurisdiction of this Court over the subject matter of this action is proper under 28 U.S.C. §§ 1331 and 1338(a).

14. Venue is proper in this Court pursuant to 28 U.S.C. §§ 1391(b) and (c) and 1400(b), at least because each of the defendants resides in this judicial district.

15. This Court has personal jurisdiction over each of the defendants because each of the defendants, among other things: is incorporated in this judicial district; has placed services that practice the claims of the Patents-in-Suit into the stream of commerce with the knowledge, or

reasonable expectation, that actual or potential users of such services were located within this judicial district.

THE PATENTS-IN-SUIT

16. Sound View incorporates by reference the preceding paragraphs as if fully set forth herein.

A. The '062 Patent

17. The '062 patent, titled "Data Analysis System Using Virtual Databases," was duly and properly issued by the United States Patent and Trademark Office ("USPTO") on September 8, 1998. A copy of the '062 patent is attached hereto as Exhibit A.

18. Sound View is the owner and assignee of the '062 patent and holds the right to sue for and recover all damages for infringement thereof, including past infringement.

19. The '062 patent generally relates to customizable data processing applications that rely on a combination of reusable software operators, such as initial operators, query operators, terminal operators, and/or external operators, to process source information from a virtual database in a particular schema, such as HTML or XML, and transform that source information into another virtual database having the same schema.

20. Various types of documents may be stored in a computer system, such as word processing files, computer programs, HTML documents, financial files, employee files, etc. When dealing with large or complex files, it is often desirable to analyze or alter the structure and content of the documents; for example, comparing a first version to a second version, or analyzing dependency relationships between various sections of computer code.

21. In order to aid such analysis, a database may be constructed which contains information describing the structure of the documents. Various database queries may be performed to extract and process information describing the structure of the source documents. A

collection of source documents, along with an associated database that describes the structure of the documents, is called a repository.

22. To analyze source document information, it is necessary to process information contained in the repository. A computer program that extracts or converts information from a repository is called an operator. Thus, an operator receives a source document and/or a database as input, processes the input, and produces some output. A simple example of an operator is a program that takes a source document as input and counts the number of occurrences of a particular word, and outputs a number containing the number of times the particular word occurs. The overall function of the analysis—in the above example, a count of the number of occurrences of a particular word—is called an application.

23. At the time of the invention of the ’062 patent, in existing repository analysis systems, operators were designed for single applications. Thus, the user indicated which operator he/she wished to apply to the repository, and the system processed the repository accordingly. The user was presented with the output when the processing was finished. Different operators processed the repository in different manners, but there was no convenient mechanism for combining the various operators to create new applications. Thus, when a new application was desired, a new operator would need to be designed from scratch.

24. Prior art repository analysis systems generally were closed systems, in that all operators were applied within the confines of the system, and all database accesses were performed within the system. For example, a repository analysis system operator may have produced as output a file containing information about the structure of a computer program. In conventional closed systems, this output could not be further processed by, for example, an external graphics program that would format the output in a desired manner. Instead, the output could only be

formatted according to operators that were internal to the repository system. There was no convenient mechanism to allow the repository analysis system to communicate with operators that were external to the system.

25. The inventors of the ’062 patent solved these discrete computer-based problems by providing, *inter alia*, a method for creating data analysis applications using reusable software operators. For example, query operators receive data in a particular virtual database format, process the data in the virtual database, and output the results of the processing in another virtual database that has the same format as the original virtual database. A plurality of query operators can be combined to customize the processing of the data. In addition, initial operators convert source information into the virtual database format so that the query operators can analyze the source data. External operators take an external format as input and create another external format as output. Also, terminal operators are used to convert a virtual database into an external format. A user can combine initial, query, terminal, and external operators to create customizable data processing applications.

26. The ’062 Patent is directed to a technical improvement in software technology over the rigid general purpose data analysis applications and expensive custom applications that existed in the 1990s. The novel software structure of the claimed inventions enabled users to engineer their own purpose-built data analysis applications with reusable interoperable software operators.

27. Creating data analysis applications using reusable software operators, as described in the ’062 patent, is particularly useful in that the external format data may be processed in various ways, thus allowing flexible presentation of the analysis results.

B. <u>The ’213 Patent</u>

28. The ’213 patent, titled “Method for Streaming Multimedia Information Over Public Networks,” was duly and properly issued by the USPTO on March 16, 2004. A copy of

the ’213 patent is attached hereto as Exhibit B.

29. Sound View is the owner and assignee of the ’213 patent and holds the right to sue for and recover all damages for infringement thereof, including past infringement.

30. The ’213 patent generally relates to streaming multimedia data (*e.g.*, audio and video data) over the Internet and other networks, and, more specifically, to methods to improve caching of streaming multimedia data from a content provider over a network to a client’s computer.

31. At the time of the invention of the ’213 patent, multimedia data could either be downloaded by the client or streamed over the network to the client. Streaming eliminated the need for the client to wait for the downloading to complete before watching or listening to the multimedia data. However, with conventional unicast connections, streaming posed problems to content providers in that server load increased linearly with the number of clients, to Internet service providers in that streaming caused network congestion problems, and to clients in that streaming often resulted in high start-up latency and unpredictable playback quality.

32. Conventional caching systems attempted to address network congestion, but these were unsuitable for streaming multimedia data: (1) video files were typically too large to be cached in their entirety, so only a few streams could be stored at a cache; (2) breaking video files into smaller pieces was not feasible because the caching systems would treat different chunks from the same video object independently; and (3) streaming multimedia has temporal characteristics, like the transmission rate, while conventional caching was only capable of handling static web objects.

33. The inventors of the ’213 patent solved those discrete computer-based problems and improved upon conventional caching techniques by providing a novel architecture and method for supporting high quality live and on-demand streaming multimedia on network systems using

helper servers.

34. The techniques described in the ’213 patent advantageously reduce server and network loads by employing helper servers with dynamic data transfer rate control to overcome arrival time and range heterogeneity in client requests, thereby improving the quality perceived by end users making requests for streaming media objects.

35. The ’213 patent has been recognized with the 2013 Edison Patent Award in Multimedia Technology for inventing “fundamental concepts and techniques to design content distribution networks and caching systems originally built for text and images to better support streaming media over the Internet.” A press release regarding the award is attached as Exhibit C.

C. The ’796 Patent

36. The ’796 patent, titled “Method and System for Caching Streaming Live Broadcasts Transmitted Over a Network,” was duly and properly issued by the USPTO on June 29, 2004. A copy of the ’796 patent is attached hereto as Exhibit D.

37. Sound View is the owner and assignee of the ’796 patent and holds the right to sue for and recover all damages for infringement thereof, including past infringement.

38. The ’796 patent generally relates to real-time multimedia applications, and more specifically, to methods for decreasing the playback delay at a client computer of a live streaming broadcast transmitted over a network.

39. At the time of the invention of the ’796 patent, live broadcasting of streaming multimedia over the Internet (including through movie broadcasts, television, sports, talk and music radio, business events, seminars, and tutorials) was becoming increasingly popular.

40. Streaming data involves sending a continuous transmission of data from the server to a client. At the client computer, received data is buffered in a cache memory and continuously processed as soon as, or soon after, being received by the client. The client computer creates a

multimedia output from the received multimedia data. The advantage of streaming is that the client computer does not have to wait until all data is downloaded from the server before some of the data is processed and the multimedia output is created.

41. Because multimedia applications involve transferring large amounts of information, such systems place a considerable load on the resources of the network, server, and client. As more people accessed network-based multimedia applications, there was an increased demand for longer, more complicated, more flexible multimedia applications.

42. Multicast technology was developed for scaling live broadcasts. However, one problem that such technology did not address was that of start-up latency, *i.e.*, the delay between the client requesting multimedia playback and the beginning of the playback on the client.

43. The techniques described in the ’796 patent solve that discrete computer-based problem and improve upon prior caching systems to better support the live broadcasting of streaming multimedia over the Internet and other network systems. In particular, the ’796 patent provides novel methods for supporting high quality live streaming multimedia broadcasts on a network by using helper servers which operate as caching and streaming agents inside the network to enhance caching and reduce playback delay without sacrificing perceived playback quality. To allow the client’s buffer to be filled faster (and thus allow playback to start faster), a playout history buffer is allocated and maintained at the helper server in response to a client request for a particular live streaming media broadcast. The playout history buffer operates as a moving window of fixed size that advances with the live broadcast stream, storing the last few seconds of the datastream. An advantage of utilizing playout history buffers is that as subsequent client requests are received at the helper server for a live streaming media broadcast which is currently being stored in a previously allocated playout history buffer in response to a former request, each subsequent

request can be serviced directly from the playout history buffer thereby reducing start up latency. An advantage in streaming data packets to each client is realized by virtue of having some number of them pre-stored in the playout history buffer. When a request is received at the helper server, the stored packets are immediately available for distribution to the requesting client.

44. Servicing subsequent requests from the playout history buffer prevents the need to individually service each subsequent request from the content server as a unicast datastream, which reduces network congestion by redirecting requests to the helper server. Also, the playout history buffer (which may be considered a form of short term dynamic cache) allows the cached data to be made immediately available to a requesting client to fill the client's playout buffer as rapidly as possible.

D. The '074 Patent

45. The '074 patent, titled "Method and System for Caching Streaming Multimedia on the Internet," was duly and properly issued by the USPTO on October 4, 2016. A copy of the '074 patent is attached hereto as Exhibit E.

46. Sound View is the owner and assignee of the '074 patent and holds the right to sue for and recover all damages for infringement thereof, including past infringement.

47. The '074 patent generally relates to network systems, and more particularly to methods for improving the caching of streaming multimedia data from a content provider over a network to a client.

48. At the time of the invention of the '074 patent, broadcasting of streaming multimedia over the Internet was becoming increasingly popular.

49. Streaming data involves sending a continuous transmission of data from the server to a client. The client computer begins to present the information as it arrives, rather than waiting for the entire data set to arrive before beginning the presentation of the data. The client computer

creates a multimedia output from the received multimedia data. The advantage of streaming is that the client computer does not have to wait until all data is downloaded from the server before some of the data is processed and the multimedia output is created.

50. Problems arose when users began to expect instantaneous streaming data on demand, particularly for video data, because streaming multimedia objects were generally delivered over the Internet and other data networks via unicast connections. Such architectures had many shortcomings, both from the content provider's and user's points of view. For content providers, such architectures put increased demand on networks and servers, as the server load increased linearly with the number of clients. For users, there were often long delays between requesting the video content and the time when the video content actually began playing (*i.e.*, high start-up latency) and unpredictable playback quality due to network congestion.

51. Web caching technology had been implemented on the Internet to reduce network load, server load, and high start-up latency. However, caching systems that existed at the time were restricted to supporting static web objects such as HTML documents or images, and did not adequately support streaming multimedia data such as video and audio streaming multimedia objects. While larger objects could be broken into smaller pieces for caching, then-existing caching systems would treat different chunks of the same video object independently, rather than considering the logical relationship among the various pieces. Also, given the larger size of streaming multimedia objects relative to static web objects, streaming multimedia objects did not lend themselves to being cached in their entirety, as disk space limitations made it not feasible to statically store more than a few complete streaming multimedia objects.

52. The '074 Patent is directed to an improved network architecture for the delivery of streaming media over the Internet. As the patent describes, conventional architectures were

designed to deliver web objects (like static web pages) to client computers, but were inadequate to deliver streaming media (like audio and video), which were larger in size and required delivery to the user in a specific order (such as beginning, middle, and end). The claimed inventions solved these problems by introducing a new architecture with "helper servers" and specific storage replacement policies to ensure efficient storage and delivery of streaming media files to users.

53. The techniques described in the '074 patent solve that discrete computer-based problem and improve upon prior caching systems by providing novel methods for supporting high quality streaming multimedia on a network that use helper servers that operate as caching and streaming agents inside the network. The helper servers implement several methods specifically designed to support streaming multimedia, including segmentation of streaming multimedia objects into smaller units, cooperation of the helper servers, and novel cache placement and replacement policies of the constituent units which make up the streaming multimedia objects. The helper servers reduce a content provider's memory and processing requirements by reducing the server load, congestion problems, and high start-up latency.

BACKGROUND FACTS

54. On March 21, 2017, Sound View sent a letter to AMC Networks notifying AMC of its infringement of the '213, '796, and '074 patents. Sound View identified representative AMC features that infringe those patents and explained its intention to allow AMC to continue to use the inventions covered in those patents through a license from Sound View. Sound View further requested a meeting to discuss the matter in more detail.

55. AMC did not respond to Sound View's March 21, 2017 letter.

56. After receiving no response, on September 27, 2017, Sound View sent a follow-up letter to AMC Networks in another attempt to initiate the negotiation of a license agreement. Sound View also provided further detail regarding AMC's infringement of the '213, '796, '062,

and ’074 patents.

57. AMC did not respond to Sound View’s September 27, 2017 letter.

58. Still having received no response from AMC, on June 4, 2018, Sound View once again wrote to AMC to provide details regarding AMC’s infringement of the ’213, ’796, and ’074 patents. Furthermore, Sound View explained its unwillingness to allow AMC to continue to willfully infringe its patents and that AMC’s failure to engage with Sound View would result in litigation.

59. On July 23, 2018, counsel for AMC responded to Sound View stating that he had not yet reviewed or analyzed Sound View’s materials.

60. On July 25, 2018, Sound View responded to AMC’s July 23, 2018 letter by expressing willingness to resolve the issues through licensing discussions, but reminding AMC that Sound View had provided materials over four months before receiving any correspondence, and noting Sound View would enforce its rights through litigation if necessary.

61. On October 17, 2018, not having heard from AMC since July 23, 2018, Sound View again wrote asking if AMC was ready to engage in discussions.

62. On October 23, 2018, counsel for AMC responded requesting a call in the coming weeks and expressing interest in learning how AMC would benefit from a Sound View patent license.

63. Sound View responded to AMC, also on October 23, 2018, expressing its willingness to schedule a call, and again explaining that AMC would benefit from a license because it was infringing Sound View’s patents.

64. AMC provided no further response.

65. Despite Sound View’s repeated efforts, AMC has refused to engage in any

meaningful discussion about reaching a licensing agreement to end its infringement of Sound View's patents. Instead, AMC continues to knowingly, intentionally, and willfully infringe Sound View's patents so as to obtain their significant benefits without paying any compensation to Sound View. Sound View thus has no other choice but to seek relief through litigation.

COUNT ONE
INFRINGEMENT OF THE '062 PATENT

66. Sound View incorporates by reference the preceding paragraphs as if fully set forth herein.

67. The '062 patent is valid and enforceable.

68. AMC's platforms, web pages, and servers, including at least the webpages amc.com and amcnetworks.com by AMC Networks, ifc.com by IFC TV, sundancetv.com by SundanceTV, wetv.com by WE tv, ifcfilms.com by IFC Films, and sundancenow.com by Digital Store (the "AMC DOM Services"), have used the Document Object Model ("DOM") to create and process customizable data analysis and processing applications. The DOM is an application programming interface ("API") that allows documents to be modelled using objects of a variety of data formats, including HTML and XML. It defines the logical structure of documents and the way a document is accessed and manipulated.

69. Using the DOM, the nodes (or objects) of every document are organized in a tree structure, called the "DOM tree," and can be manipulated individually using the DOM methods (or operators). With the DOM, programmers can build documents, navigate their structure, and add, modify, or delete elements and content. Anything found in an HTML or XML document can be manipulated in this way using the DOM, with a few exceptions.

70. As an object model, the DOM identifies: (1) the interfaces and objects used to represent and manipulate a document; (2) the semantics of these interfaces and objects – including

both behavior and attributes of the relationships; and (3) collaborations among these interfaces and objects.

71. jQuery is a DOM manipulation library that makes it easier to use JavaScript on a website by taking more complex code needed to manipulate the DOM and wrapping the code into simpler methods that can be called with smaller amounts of JavaScript.

72. On information and belief, AMC has used jQuery throughout its products and services, including at least the AMC DOM Services.

73. AMC has infringed one or more claims of the '062 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, by making, using, selling, and/or offering for sale in the United States, and/or importing into the United States, products and/or methods encompassed by those claims, including for example, by making, using, selling, offering for sale, and/or importing its AMC platforms, web pages, and servers, including for example its web pages and servers that use and have used jQuery.

74. For example, AMC has infringed claim 14 by using a method for processing information comprising the steps of:

a. providing a plurality of software operators (such as jQuery methods, including, for example, ".removeClass( )," ".addClass( )," ".hide( )," ".show( )," ".css( )," and ".attr( )," or another DOM manipulation method) each configured to receive a virtual database (such as DOM nodes (or objects) or web pages, describing the structure of a document) having a first schema (such as HTML or XML), for processing information contained in said virtual database (such as by applying a jQuery method to a node in the DOM tree), and for outputting a virtual database having said first schema; and

b. combining at least two of said software operators to create an application (such as that used to construct and serve the AMC DOM Services).

75. Sound View has been damaged by AMC's infringement of the '062 patent and is entitled to recover from AMC the damages sustained by Sound View as a result of AMC's wrongful acts in an amount adequate to compensate Sound View for AMC's infringement subject to proof at trial.

COUNT TWO
INFRINGEMENT OF THE '213 PATENT

76. Sound View incorporates by reference the preceding paragraphs as if fully set forth herein.

77. The '213 patent is valid and enforceable.

78. On September 27, 2017, Sound View informed AMC that its systems and applications infringe the '213 patent. However, AMC has not stopped infringing.

79. A content delivery network, also called a content distribution network (CDN), is a network of connected computers that delivers internet content, such as streaming video, to end users. When a service, such as AMC, uses a CDN, the content comes from an "origin server" and is replicated on numerous "edge servers." When an end user requests particular content, the CDN provides the content from an edge server near to the end user. This arrangement has numerous benefits, such as: faster response time (lower latency) because the content is served from a nearby edge server, instead of a potentially distant origin server; greater throughput because the edge server will be less loaded than a single origin server would be; and greater availability because the multiplicity of servers allows for a request to be failed over to another server if an edge server crashes.

80. AMC provides and has provided streaming services, including at least AMC

Network's amc.com, amc.com/livestream, and the AMC App, IFC TV's ifc.com, SundanceTV's sundancetv.com, WE tv's wetv.com, IFC Films's ifcfilms.com, Digital Store's Sundance Now, and Shudder's Shudder (the "AMC '213 Services"), to allow users to watch streaming video. AMC provides streaming video services to its users utilizing content delivery networks, including at least Limelight Networks, Inc. ("Limelight") and Akamai Technologies Inc. ("Akamai") (collectively, "the CDNs"). The AMC '213 Services provide video that is encoded using certain protocols, including the HTTP Live Streaming ("HLS") protocol and the MPEG-DASH protocol.

81. HLS is an HTTP-based media streaming communications protocol. It works by breaking the overall stream into a sequence of small HTTP-based file downloads; each download is one short chunk that is part of an overall potentially unbounded transport stream. As the stream is played, the client may select from a number of different alternate chunks containing the same material encoded at a variety of data rates.

82. MPEG-DASH is an adaptive bitrate streaming technique that enables high quality streaming of media content over the Internet delivered from conventional HTTP web servers. Similar to HLS, MPEG-DASH works by breaking the content into a sequence of small HTTP-based file segments, each segment containing a short interval of playback time of content that is potentially many hours in duration, such as a live broadcast of a sports event. The content is made available at a variety of different bit rates, with alternative segments encoded at different bit rates covering aligned short intervals of playback time.

83. The CDNs each support AMC's delivery of video content to users using MPEG-DASH and/or HLS. Moreover, each of the CDNs openly advertises and promotes the use of those protocols to deliver video content to users.

84. Knowing that each of the CDNs supports the delivery of video content using

MPEG-DASH and/or HLS, and directing and controlling such support, AMC delivers video streams to its users, including the AMC '213 Services, using at least the CDNs by transcoding videos into MPEG-DASH segments with different bit rates, and providing those segments to each of the CDNs. The CDNs store those MPEG-DASH segments in caches, and send them to AMC users who request to view the video files.

85. AMC contracts or has contracted with each of the CDNs, so that when at least certain AMC users request a video stream, the request is routed to one of the edge servers of the CDNs, which receives the request. The edge server then allocates a local buffer to store portions of the stream.

86. On information and belief, AMC can and has configured and/or customized aspects of the operation of each of the CDNs in delivering content to its users. For example, AMC can customize the operation of the Akamai CDN through configuration tools, such as Akamai's Luna Control Center. As a further example, AMC can customize the operation of the Limelight CDN through configuration tools, such as Limelight Control.

87. At least through contracting with the CDNs and configuring and/or customizing aspects of the operation of the CDNs, AMC has knowledge of the operations of the CDNs and the steps the CDNs' systems will perform in order to deliver content to AMC's users. AMC thus knowingly causes and specifically intends for the CDNs to perform those steps, or directs and controls the CDNs' performance of these steps by means of at least its contractual relationship with, and by configuring and customizing, the CDNs.

88. For example, utilizing Limelight's CDN requires storing segments in a local buffer on an edge server, and at least by entering into a contractual relationship with Limelight, AMC knowingly intends for Limelight to do so, or directs and controls Limelight (either implicitly or

explicitly) to do so. AMC intends for, or directs, the Limelight edge server to request the MPEG-DASH or HLS segments from a datacenter cache, store them in the local buffer, and send them to AMC users who view the video. Further, AMC intends for, or directs, the edge server to store data in the buffer so that its end users can receive content with a lower latency.

89. While the Limelight edge server sends the requested segments to the user, it concurrently requests the next few segments in the stream from the datacenter cache or from the cache of another server. By doing so, the content can be streamed smoothly without pauses for buffering. AMC intends for and contracts with Limelight to deliver content in this manner so that its users can receive content without pauses for buffering. AMC and other customers have the ability to configure the size of the segments to be fetched in the Limelight system. The Limelight CDN, as configured and customized by AMC, also allows AMC users to receive content without pauses for buffering by allowing end users to send byte range requests to the edge server.

90. While the content is being played back by an MPEG-DASH or HLS client, the client automatically selects the next segment to download and play based on current network conditions. The streaming server then provides the requested alternate segment, resulting in the server adjusting the data rate. AMC intends for and controls the Limelight CDN to adjust the data rate by directing, controlling, and/or inducing Limelight to provide the content on its CDN at different data rates.

91. As a further example, utilizing Akamai's CDN requires storing segments in a local buffer on an edge server, and at least by entering into a contractual relationship with Akamai, AMC knowingly intends for Akamai to do so, or directs and controls Akamai (either implicitly or explicitly) to do so. AMC intends for, or directs, the Akamai edge server to request the MPEG-DASH or HLS segments from a datacenter cache, store them in the local buffer, and send them to

AMC users who view the video. Further, AMC intends for, or directs, the edge server to store data in the buffer so that its end users can receive content with a lower latency.

92. While the Akamai edge server sends the requested segments to the user, it concurrently requests the next few segments in the stream from the datacenter cache or from the cache of another server. By doing so, the content can be streamed smoothly without pauses for buffering. Akamai advertises this process as "pre-fetching." AMC intends for and contracts with Akamai to use pre-fetching so that its users could receive content without pauses for buffering. AMC and other customers have the ability to configure the size of the segments to be fetched in the Akamai system. The Akamai CDN, as configured and customized by AMC, also allows AMC users to receive content without pauses for buffering by allowing end users to send byte range requests to the edge server.

93. While the content is being played back by an MPEG-DASH or HLS client, the client automatically selects the next segment to download and play based on current network conditions. The streaming server then provides the requested alternate segment, resulting in the server adjusting the data rate. AMC intends for and controls the Akamai CDN to adjust the data rate by directing, controlling, and/or inducing Akamai to provide the content on its CDN at different data rates.

94. AMC directly infringes one or more claims of the '213 patent (including at least claim 16) under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling at least the performance of the claimed steps by the CDNs to infringe the '213 patent to deliver the AMC '213 Services.

95. For example, AMC has directly infringed, and continues to directly infringe, claim 16 of the '213 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents,

at least by directing and/or controlling Limelight (through at least contracting with Limelight and customizing the Limelight CDN) to deliver the AMC '213 Services. For example, AMC has directly infringed, and continues to directly infringe, claim 16 of the '213 patent under 35 U.S.C. § 271(a) literally and/or under the doctrine of equivalents, at least by directing and/or controlling Limelight (through at least contracting with Limelight and customizing the Limelight CDN) to infringe claim 16 by using a method of reducing latency in a network having a content server which hosts streaming media ("SM") objects (such as videos) which comprise a plurality of time-ordered segments (such as HLS or MPEG-DASH segments) for distribution over said network through a plurality of helpers ("HSs") (such as Limelight cache or edge servers) to a plurality of clients (such as users of the AMC '213 Services). Further:

a. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to receive a request for an SM object from one of said plurality of clients (such as a user of one of the AMC '213 Services requesting to watch a hosted video) at one of said plurality of helper servers (such as by directing and/or controlling one of the Limelight cache or edge servers to receive such a request from a user of one of the AMC '213 Services to watch a hosted video);

b. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to allocate a buffer at one of said plurality of HSs to cache at least a portion of said requested SM object (such as by directing and/or controlling Limelight to allocate a local buffer to store portions of the stream as HLS or MPEG-DASH segments at the Limelight cache or edge servers);

c. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to download said

portion of said requested SM object to said requesting client, while concurrently retrieving a remaining portion of said requested SM object from one of another HS and said content server (such as by directing and/or controlling the Limelight cache or edge server to pre-fetch the next segment of video content by requesting the next HLS or MPEG-DASH segments in the stream from the datacenter cache, and/or by directing and/or controlling the Limelight cache or edge server to be capable of receiving a byte range request in order to download a segment of a requested video stream to a client while concurrently downloading the next segments from another server); and

d. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN and/or its provision of content encoded at multiple bitrates, to adjust a data transfer rate at said one of said plurality of HSs for transferring data from said one of said plurality of helper servers to said one of said plurality of clients (such as by directing and/or controlling Limelight to provide alternate segments encoded at different data rates to the client to accommodate the current network conditions (*e.g.*, the client's current bandwidth), such that providing the requested alternate segment results in an adjusted data rate).

96. As a further example, AMC has also directly infringed, and continues to directly infringe, one or more claims of the '213 patent (including at least claim 16) under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling Akamai (through at least contracting with Akamai and customizing the Akamai CDN) to deliver the AMC '213 services using the claimed methods of the '213 patent. For example, AMC has infringed, and continues to directly infringe, claim 16 by using a method of reducing latency in a network having a content server which hosts SM objects (such as videos) which comprise a

plurality of time-ordered segments (such as HLS or MPEG-DASH segments) for distribution over said network through a plurality of HSs (such as Akamai cache or edge servers) to a plurality of clients (such as users of the AMC ’213 Services). Further:

a. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai’s CDN, to receive a request for an SM object from one of said plurality of clients (such as a user of one of the AMC ’213 Services requesting to watch a hosted video) at one of said plurality of helper servers (such as by directing and/or controlling one of the Akamai cache or edge servers to receive such a request from a user of one of the AMC ’213 Services to watch a hosted video);

b. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai’s CDN, to allocate a buffer at one of said plurality of HSs to cache at least a portion of said requested SM object (such as by directing and/or controlling Akamai to allocate a local buffer to store portions of the stream as HLS or MPEG-DASH segments at the Akamai cache or edge servers);

c. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai’s CDN, to download said portion of said requested SM object to said requesting client, while concurrently retrieving a remaining portion of said requested SM object from one of another HS and said content server (such as by directing and/or controlling the Akamai cache or edge server to pre-fetch the next segment of video content by requesting the next HLS or MPEG-DASH segments in the stream from the datacenter cache, and/or by directing and/or controlling the Akamai cache or edge server to be capable of receiving a byte range request in order to download a segment of a requested video stream to a client while concurrently downloading the next segments from another server); and

d. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN and/or its provision of content encoded at multiple bitrates, to adjust a data transfer rate at said one of said plurality of HSs for transferring data from said one of said plurality of helper servers to said one of said plurality of clients (such as by directing and/or controlling Akamai to provide alternate segments encoded at different data rates to the client to accommodate the current network conditions (*e.g.*, the client's current bandwidth), such that providing the requested alternate segment results in an adjusted data rate).

97. In addition or in the alternative, AMC has induced infringement, and continues to induce infringement, of one or more claims of the '213 patent under 35 U.S.C. § 271(b), literally and/or under the doctrine of equivalents. AMC has actively, knowingly, and intentionally induced (and continues to induce) infringement of the '213 patent by making, using, offering for sale, selling, supplying, maintaining, and/or supporting the AMC '213 Services; by contracting with the CDNs and customizing the CDNs with the specific intent to cause the CDNs to perform the steps claimed in the '213 patent to deliver video data, including the AMC '213 Services, to AMC's users, and with the knowledge that such actions infringe the '213 patent.

98. For example, at least through repeated correspondence from Sound View, AMC knows that at least Limelight and Akamai perform the claimed methods of the '213 patent to deliver the AMC '213 Services, and that AMC induces the infringement of each of those CDNs. (*See* Exhibit F, incorporated herein by reference.) Moreover, AMC specifically intends that infringement, at least by continuing to contract with and utilize the Limelight and Akamai CDNs to offer the AMC '213 Services; configuring the Limelight and Akamai CDNs to perform the claimed methods of the '213 patent; and by encouraging and facilitating their infringement through

the use of the AMC ’213 Services by AMC’s users and/or the creation and dissemination of documentation related to the AMC ’213 Services, including by, for example, encouraging and instructing its agents and contractors, such as Limelight and Akamai, to provide video to AMC’s users through the AMC ’213 Services, causing the performance of the claimed methods with the knowledge that such actions infringe the ’213 patent.

99. For example, AMC intends for and induces Limelight to infringe claim 16 to deliver the AMC ’213 Services by using a method of reducing latency in a network having a content server which hosts SM objects (such as videos) which comprise a plurality of time-ordered segments (such as HLS or MPEG-DASH segments) for distribution over said network through a plurality of HSs (such as Limelight cache or edge servers) to a plurality of clients (such as users of the AMC ’213 Services). AMC further intends for and induces Limelight to:

a. receive a request for an SM object from one of said plurality of clients (such as a user of one of the AMC ’213 Services requesting to watch a hosted video) at one of said plurality of helper servers (such as one of the Limelight cache or edge servers, with knowledge that Limelight’s cache or edge servers will receive such a request from a user of one of the AMC ’213 Services to watch a hosted video);

b. allocate a buffer at one of said plurality of HSs to cache at least a portion of said requested SM object (such as by inducing Limelight to allocate a local buffer to store portions of the stream as HLS or MPEG-DASH segments at the Limelight cache or edge servers, with knowledge that Limelight’s CDN will allocate such a buffer at one of the Limelight cache or edge servers to store portions of the stream as HLS or MPEG-DASH segments);

c. download said portion of said requested SM object to said requesting client, while concurrently retrieving a remaining portion of said requested SM object from one of another

HS and said content server (such as the Limelight cache or edge server pre-fetching the next segment of video content by requesting the next HLS or MPEG-DASH segments in the stream from the datacenter cache, with knowledge that Limelight's cache or edge servers will pre-fetch the next segment of video by requesting the next HLS or MPEG-DASH segment in the stream from the datacenter cache, and/or by directing and/or controlling the Limelight cache or edge server to be capable of receiving a byte range request in order to download a segment of a requested video stream to a client while concurrently downloading the next segments from another server); and

d. adjust a data transfer rate at said one of said plurality of HSs for transferring data from said one of said plurality of helper servers to said one of said plurality of clients (such as providing alternate segments encoded at different data rates to the client to accommodate the current network conditions (*e.g.*, the client's current bandwidth), and then providing the requested alternate segment resulting in an adjusted data rate, with knowledge that the Limelight CDN will provide alternate segments encoded at different data rates to the client).

100. As a further example, AMC intends for and induces Akamai to infringe claim 16 to deliver the '213 AMC Services by using a method of reducing latency in a network having a content server which hosts SM objects (such as videos) which comprise a plurality of time-ordered segments (such as HLS or MPEG-DASH segments) for distribution over said network through a plurality of HSs (such as Akamai cache or edge servers) to a plurality of clients (such as users of the AMC '213 Services). AMC further intends for and induces Akamai to:

a. receive a request for an SM object from one of said plurality of clients (such as a user of one of the AMC '213 Services requesting to watch a hosted video) at one of said plurality of helper servers (such as one of the Akamai cache or edge servers, with knowledge that

Akamai's cache or edge servers will receive such a request from a user of one of the AMC '213 Services to watch a hosted video);

b. allocate a buffer at one of said plurality of HSs to cache at least a portion of said requested SM object (such as by inducing Akamai to allocate a local buffer to store portions of the stream as HLS or MPEG-DASH segments at the Akamai cache or edge servers, with knowledge that Akamai's CDN will allocate such a buffer at one of the Akamai cache or edge servers to store portions of the stream as HLS or MPEG-DASH segments);

c. download said portion of said requested SM object to said requesting client, while concurrently retrieving a remaining portion of said requested SM object from one of another HS and said content server (such as the Akamai cache or edge server pre-fetching the next segment of video content by requesting the next HLS or MPEG-DASH segments in the stream from the datacenter cache, with knowledge that Akamai's cache or edge servers will pre-fetch the next segment of video by requesting the next HLS or MPEG-DASH segment in the stream from the datacenter cache, and/or by directing and/or controlling the Akamai cache or edge server to be capable of receiving a byte range request in order to download a segment of a requested video stream to a client while concurrently downloading the next segments from another server); and

d. adjust a data transfer rate at said one of said plurality of HSs for transferring data from said one of said plurality of helper servers to said one of said plurality of clients (such as providing alternate segments encoded at different data rates to the client to accommodate the current network conditions (*e.g.*, the client's current bandwidth), and then providing the requested alternate segment resulting in an adjusted data rate, with knowledge that the Akamai CDN will provide alternate segments encoded at different data rates to the client).

101. Sound View has been and continues to be damaged by AMC's infringement of the

'213 patent and is entitled to recover from AMC the damages sustained by Sound View as a result of AMC's wrongful acts in an amount adequate to compensate Sound View for AMC's infringement subject to proof at trial.

102. In committing these acts of infringement, AMC committed egregious misconduct including, for example, acting despite knowing that its actions constituted infringement of a valid patent, or recklessly disregarding the fact that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent.

103. AMC's infringement of the '213 patent was and is deliberate and willful, entitling Sound View to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT THREE
INFRINGEMENT OF THE '796 PATENT

104. Sound View incorporates by reference the preceding paragraphs as if fully set forth herein.

105. The '796 patent is valid and enforceable.

106. On September 27, 2017, Sound View informed AMC that its systems and applications infringe the '796 patent. However, AMC has not stopped infringing.

107. AMC provides and has provided live streaming services, including at least AMC Network's amc.com/livestream and the AMC App, IFC TV's ifc.com/livestream, SundanceTV's sundancetv.com/livestream, and WE tv's wetv.com/livestream (the "AMC '796 Services"), to allow users to watch live streaming video.

108. The CDNs each support AMC's delivery of video content to users using MPEG-DASH and/or HLS. Moreover, each of the CDNs openly advertises and promotes the use of those protocols to deliver video content to users. Knowing that each of the CDNs supports the delivery

of video content using MPEG-DASH and/or HLS, and directing or controlling such support, AMC delivers the AMC '796 Services to its users using at least the Limelight and Akamai CDNs by transcoding videos into MPEG-DASH and/or HLS segments.

109. AMC contracts or has contracted with each of the CDNs, so that when at least certain AMC users request the AMC '796 Services video stream, the request is routed to one of the edge servers of the CDN, which receives the request. On information and belief, AMC can and has configured and/or customized aspects of the operation of each of the CDNs in delivering content to its users. For example, AMC can customize the operation of the Limelight CDN through configuration tools, such as the Limelight Orchestrate Platform. As a further example, AMC can customize the operation of the Akamai CDN through configuration tools, such as Akamai's Luna Control Center.

110. For example, at least through contracting with Limelight and configuring and/or customizing aspects of the operation of the Limelight CDN, AMC has knowledge of the operations of the Limelight CDN and the steps the Limelight systems will perform in order to deliver content to AMC's users. AMC thus knowingly causes and specifically intends for Limelight to perform those steps, or directs and controls Limelight's performance of these steps by means of at least its contractual relationship with Limelight and by configuring and customizing Limelight's CDN.

111. For example, AMC contracts with Limelight knowing that when at least certain AMC users request the AMC '796 Services live stream, the request is routed to a Limelight edge server, which receives the request, and that the Limelight edge server allocates a local buffer to store portions of the stream. AMC contracts with Limelight also knowing that when a second user requests the same video stream, the Limelight edge server will provide the stream from the same local buffer, because Limelight's edge servers serve the second request from the same local buffer

because doing so saves space and bandwidth. AMC's contract with Limelight thus implicitly or explicitly directs and controls Limelight to serve a second request for the same stream from the same local buffer. Because the Limelight edge server already has the requested stream in a local buffer, it takes less time to send it to the second user.

112. As a further example, at least through contracting with Akamai and configuring and/or customizing aspects of the operation of the Akamai CDN, AMC has knowledge of the operations of the Akamai CDN and the steps the Akamai systems will perform in order to deliver content to AMC's users. AMC thus knowingly causes and specifically intends for Akamai to perform those steps, or directs and controls Akamai's performance of those steps by means of at least its contractual relationship with Akamai and by configuring and customizing Akamai's CDN.

113. For instance, AMC contracts or has contracted with Akamai knowing that when at least certain AMC users request the AMC '796 Services live stream, the request is routed to an Akamai edge server, which receives the request, and that the Akamai edge server allocates a local buffer to store portions of the stream. AMC contracts with Akamai also knowing that when a second user requests the same video stream, the Akamai edge server will provide the stream from the same local buffer, because Akamai's edge servers serve the second request from the same local buffer because doing so saves space and bandwidth. AMC's contract with Akamai thus implicitly or explicitly directs and control Akamai to serve a second request for the same stream from the same local buffer. Because the Akamai edge server already has the requested stream in a local buffer, it takes less time to send it to the second user.

114. AMC directly infringes one or more claims of the '796 patent (including at least claim 27) under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling at least the performance of the claimed steps by the CDNs to infringe

the ’796 patent to deliver the AMC ’796 Services.

115. For example, AMC has directly infringed, and continues to directly infringe, claim 27 of the ’796 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling Limelight (through at least contracting with Limelight and customizing the Limelight CDN) to infringe claim 27 to deliver the AMC ’796 Services by using, in a network having a content server (such as a web content server) which hosts a plurality of live SM broadcast objects (such as live video) for distribution over said network through a plurality of HSs (such as Limelight’s edge servers) to a plurality of clients (such as AMC’s users), a method of reducing start-up latency associated with distributing said plurality of live SM broadcast objects from said content server and said plurality of HSs to said plurality of clients. Further:

a. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight’s CDN, to receive a first request for one of said plurality of live SM broadcast objects at one of said plurality of HSs (such as by directing and/or controlling Limelight to receive a first request from a AMC user to watch a live video at one of Limelight’s edge servers);

b. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight’s CDN, to service said first request from a non pre-configured playout history (“PH”) buffer (such as by directing and/or controlling Limelight to contact a content server, retrieve and cache the requested MPEG-DASH or HLS segments at the Limelight edge server in a local buffer, and deliver the requested content to the client) at a first data rate;

c. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight’s CDN, to receive a second

request for said one of said plurality of live SM broadcast objects at said one of said plurality of HSs (such as by directing and/or controlling Limelight to receive a second request for the same MPEG-DASH or HLS segments at the Limelight edge server); and

d. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to partially service said second request from said non pre-configured PH buffer (such as by directing and/or controlling Limelight to deliver the requested MPEG-DASH or HLS segments to the client from the same local buffer on the Limelight edge server) at a second data rate, wherein said second data rate is higher than said first data rate.

116. As a further example, AMC has directly infringed, and continues to directly infringe, claim 27 of the '796 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling Akamai (through at least contracting with Akamai and customizing the Akamai CDN) to infringe claim 27 to deliver the AMC '796 Services by using, in a network having a content server (such as a web content server) which hosts a plurality of live SM broadcast objects (such as live video) for distribution over said network through a plurality of HSs (such as Akamai's edge servers) to a plurality of clients (such as AMC's users), a method of reducing start-up latency associated with distributing said plurality of live SM broadcast objects from said content server and said plurality of HSs to said plurality of clients. Further:

a. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to receive a first request for one of said plurality of live SM broadcast objects at one of said plurality of HSs (such as by directing

and/or controlling Akamai to receive a first request from a AMC user to watch a live video at one of Akamai's edge servers);

b. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to service said first request from a non pre-configured playout history ("PH") buffer (such as by directing and/or controlling Akamai to contact a content server, retrieve and cache the requested MPEG-DASH or HLS segments at the Akamai edge server in a local buffer, and deliver the requested content to the client) at a first data rate;

c. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to receive a second request for said one of said plurality of live SM broadcast objects at said one of said plurality of HSs (such as by directing and/or controlling Akamai to receive a second request for the same MPEG-DASH or HLS segments at the Akamai edge server); and

d. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to partially service said second request from said non pre-configured PH buffer (such as by directing and/or controlling Akamai to deliver the requested MPEG-DASH or HLS segments to the client from the same local buffer on the Akamai edge server) at a second data rate, wherein said second data rate is higher than said first data rate.

117. In addition or in the alternative, AMC has induced infringement, and continues to induce infringement, of one or more claims of the '796 patent under 35 U.S.C. § 271(b), literally and/or under the doctrine of equivalents. AMC has actively, knowingly, and intentionally induced (and continues to induce) infringement of the '796 patent by making, using, offering for sale,

selling, supplying, maintaining, and/or supporting the AMC '796 Services; by contracting with the CDNs and customizing the CDNs with the specific intent to cause the CDNs to perform the steps claimed in the '796 patent to deliver video data, including the AMC '796 Services, to AMC's users, and with the knowledge that such actions infringe the '796 patent.

118. For example, at least through repeated correspondence from Sound View, AMC knows that at least Limelight and Akamai perform the claimed methods of the '796 patent, and that AMC induces the infringement of each of those CDNs. (*See* Exhibit F, incorporated herein by reference.) Moreover, AMC specifically intends that infringement, at least by continuing to contract with and utilize the Limelight and Akamai CDNs to offer the AMC '796 Services; configuring or customizing the Limelight and Akamai CDNs to perform the claimed methods of the '796 patent; and by encouraging and facilitating their infringement through the use of the AMC '796 Services by AMC's users and/or the creation and dissemination of documentation related to the AMC '796 Services, including by, for example, encouraging and instructing its agents and contractors, such as Limelight and Akamai, to provide video to AMC's users through the AMC '796 Services, causing the performance of the claimed methods with the knowledge that such actions infringe the '796 patent.

119. For example, AMC intends for and induces Limelight to infringe claim 27 to deliver the AMC '796 Services by using, in a network having a content server (such as a web content server) which hosts a plurality of live SM broadcast objects (such as live video) for distribution over said network through a plurality of HSs (such as Limelight's edge servers) to a plurality of clients (such as AMC's users), a method of reducing start-up latency associated with distributing said plurality of live SM broadcast objects from said content server and said plurality of HSs to said plurality of clients, said method comprising:

a. receiving a first request for one of said plurality of live SM broadcast objects (such as an AMC user requesting to watch a live video) at one of said plurality of HSs (such as the Limelight edge servers);

b. servicing said first request from a non pre-configured PH buffer (such as by contacting a content server, retrieving and caching the requested MPEG-DASH or HLS segments at the Limelight edge server in a local buffer, and delivering the requested content to the client) at a first data rate;

c. receiving a second request for said one of said plurality of live SM broadcast objects at said one of said plurality of HSs (such as receiving a second request for the same MPEG-DASH or HLS segments at the Limelight edge server); and

d. partially servicing said second request from said non pre-configured PH buffer (such as by delivering the requested MPEG-DASH or HLS segments to the client from the same local buffer on the Limelight edge server) at a second data rate, wherein said second data rate is higher than said first data rate.

120. As a further example, AMC intends for and induces Akamai to infringe claim 27 to deliver the AMC ’796 Services by using, in a network having a content server (such as a web content server) which hosts a plurality of live SM broadcast objects (such as live video) for distribution over said network through a plurality of HSs (such as Akamai’s edge servers) to a plurality of clients (such as AMC’s users), a method of reducing start-up latency associated with distributing said plurality of live SM broadcast objects from said content server and said plurality of HSs to said plurality of clients, said method comprising:

a. receiving a first request for one of said plurality of live SM broadcast objects (such as an AMC user requesting to watch a live video) at one of said plurality of HSs (such as the Akamai edge servers);

b. servicing said first request from a non pre-configured PH buffer (such as by contacting a content server, retrieving and caching the requested MPEG-DASH or HLS segments at the Akamai edge server in a local buffer, and delivering the requested content to the client) at a first data rate;

c. receiving a second request for said one of said plurality of live SM broadcast objects at said one of said plurality of HSs (such as receiving a second request for the same MPEG-DASH or HLS segments at the Akamai edge server); and

d. partially servicing said second request from said non pre-configured PH buffer (such as by delivering the requested MPEG-DASH or HLS segments to the client from the same local buffer on the Akamai edge server) at a second data rate, wherein said second data rate is higher than said first data rate.

121. Sound View has been and continues to be damaged by AMC's infringement of the '796 patent and is entitled to recover from AMC the damages sustained by Sound View as a result of AMC's wrongful acts in an amount adequate to compensate Sound View for AMC's infringement subject to proof at trial.

122. In committing these acts of infringement, AMC committed egregious misconduct including, for example, acting despite knowing that its actions constituted infringement of a valid patent, or recklessly disregarding the fact that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent.

123. AMC's infringement of the '796 patent was and is deliberate and willful, entitling

Sound View to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

COUNT FOUR
INFRINGEMENT OF THE '074 PATENT

124. Sound View incorporates by reference the preceding paragraphs as if fully set forth herein.

125. The '074 patent is valid and enforceable.

126. On September 27, 2017, Sound View informed AMC that its systems and applications infringe the '074 patent. However, AMC has not stopped infringing.

127. The CDNs each support AMC's delivery of video content, including at least on AMC Network's amc.com, amc.com/livestream, and the AMC App, IFC TV's ifc.com, SundanceTV's sundancetv.com, WE tv's wetv.com, IFC Film's ifcfilms.com, Digital Store's Sundance Now, and Shudder's Shudder (the "AMC '074 Services"), to users using MPEG-DASH and/or HLS. Moreover, each of the CDNs openly advertises and promotes the use of those protocols to deliver video content to users. Knowing that each of the CDNs supports the delivery of video content using MPEG-DASH and/or HLS, and directing and controlling such support, AMC delivers video streams to its users, including the AMC '074 Services, using at least the Limelight and Akamai CDNs.

128. AMC contracts or has contracted with each of the CDNs, so that when at least certain AMC end users request a stream, the CDN's edge server handling the request downloads portions of that stream (segments or chunks). On information and belief, AMC can and has configured and/or customized aspects of the operation of each of the CDNs in delivering content to its users. For example, AMC can customize the operation of the Limelight CDN through configuration tools, such as the Limelight Orchestrate Platform. As a further example, AMC can

customize the operation of the Akamai CDN through configuration tools, such as Akamai's Luna Control Center.

129. At least through contracting with Limelight and configuring and/or customizing aspects of the operation of the Limelight CDN, AMC has knowledge of the operations of the Limelight CDN and the steps the Limelight systems will perform in order to deliver content to AMC's users. AMC thus knowingly causes and specifically intends for Limelight to perform those steps, or directs and controls Limelight's performance of these steps by means of its contractual relationship with Limelight and by configuring and customizing Limelight's CDN.

130. For example, AMC contracts with Limelight knowing that when at least certain AMC end users request a stream, Limelight's edge server handling the request downloads portions of that stream (segments or chunks), and that the Limelight edge server then attempts to store portions of the stream. AMC knows and intends for the Limelight edge server to store data in the buffer in order so that its end users can receive content with a lower latency.

131. The Limelight edge server utilizes caching algorithms to determine if there is sufficient disk space to store the requested portions. AMC intends for and induces Limelight to determine if there is sufficient disk space because the Limelight edge server will not be able to store portions of a stream if there is insufficient space, resulting in service interruption to AMC's end users.

132. Limelight advertises that if there is insufficient disk space at a Limelight edge server, the Limelight edge server will delete the least recently used chunks of various streams stored on the server rather than delete all of any one stream's content. Limelight's edge servers delete the least recently used chunks of various streams in order to conserve bandwidth. AMC's contract with Limelight thus explicitly or implicitly directs and/or controls Limelight to delete the

least recently used chunks. AMC intends for and induces Limelight to delete the least recently used chunks of various streams in order to, among other things, more efficiently utilize disk space on the Limelight edge server, reducing AMC's costs.

133. As a further example, at least through contracting with Akamai and configuring and/or customizing aspects of the operation of the Akamai CDN, AMC has knowledge of the operations of the Akamai CDN and the steps the Akamai systems will perform in order to deliver content to AMC's users. AMC thus knowingly causes and specifically intends for Akamai to perform those steps, or directs and controls Akamai's performance of those steps by means of its contractual relationship with Akamai and by configuring and customizing Akamai's CDN.

134. For instance, AMC contracts with Akamai so that when at least certain AMC end users request a stream, the Akamai edge server handling the request downloads portions of that stream (segments or chunks). The Akamai edge server then attempts to store portions of the stream. AMC intends for the Akamai edge server to store data in the buffer in order so that its end users can receive content with a lower latency.

135. The Akamai edge server utilizes caching algorithms to determine if there is sufficient disk space to store the requested portions. AMC intends for and induces Akamai to determine if there is sufficient disk space because the Akamai edge server will not be able to store portions of a stream if there is insufficient space, resulting in service interruption to AMC's end users.

136. Akamai advertises that if there is insufficient disk space at an Akamai edge server, the Akamai edge server will delete the least recently used chunks of various streams stored on the server rather than delete all of any one stream's content. Akamai's edge servers delete the least recently used chunks of various streams in order to conserve bandwidth. AMC's contract with

Akamai thus explicitly or implicitly directs and/or controls Akamai to delete the least recently used chunks. AMC intends for and induces Akamai to delete the least recently used chunks of various streams in order to, among other things, more efficiently utilize disk space on the Akamai edge server, reducing AMC's costs.

137. AMC directly infringes one or more claims of the '074 patent (including at least claim 9) under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling at least the performance of the claimed steps by Limelight and Akamai to infringe the '074 patent to deliver the AMC '074 Services.

138. For example, AMC has directly infringed, and continues to directly infringe, one or more claims of the '074 patent (including at least claim 9) under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling Limelight (through at least contracting with Limelight and configuring the Limelight CDN) to infringe claim 9 to deliver the AMC '074 Services by using a method for managing storage of a streaming media (SM) object (such as videos) in a network having a content server which hosts SM objects for distribution over said network through a plurality of servers (such as Limelight's CDN with a plurality of edge servers) to a plurality of clients (such as AMC's users). Further:

a. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to receive said SM object (such as by directing and/or controlling Limelight to receive the requested portion of a video at a Limelight edge server);

b. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to determine whether there is a disk space available on one of said plurality of servers (such as by directing and/or

controlling Limelight to use a caching algorithm to determine whether sufficient disk space is available on a storage device on the Limelight edge server);

c. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to store said SM object at said at least one HS if it is determined that there is sufficient disk space available (such as by directing and/or controlling Limelight to store the requested portion of the video on the Limelight edge server if it is determined that there is sufficient disk space available); and

d. AMC directs and/or controls Limelight, at least via its contract with Limelight and/or its configuration and customization of Limelight's CDN, to, if it is determined that there is insufficient disk space available to store the received SM object, for each of a plurality of SM objects stored in said disk space, delete only a portion of said SM object (such as by directing and/or controlling Limelight to use a caching algorithm to delete the least recently used portion of a multimedia object from a storage device on the Limelight edge server), whereby the deletion of said portions of said SM objects results in sufficient disk space being available for storage of the received SM object.

139. As a further example, AMC has directly infringed, and continues to directly infringe, one or more claims of the '074 patent (including at least claim 9) under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, at least by directing and/or controlling Akamai (through at least contracting with Akamai and configuring the Akamai CDN) to infringe claim 9 to deliver the AMC '074 Services by using a method for managing storage of a streaming media (SM) object (such as videos) in a network having a content server which hosts SM objects for distribution over said network through a plurality of servers (such as Akamai's CDN with a plurality of edge servers) to a plurality of clients (such as AMC's users). Further:

a. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to receive said SM object (such as by directing and/or controlling Akamai to receive the requested portion of a video at a Akamai edge server);

b. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to determine whether there is a disk space available on one of said plurality of servers (such as by directing and/or controlling Limelight to use a caching algorithm to determine whether sufficient disk space is available on a storage device on the Limelight edge server);

c. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to store said SM object at said at least one HS if it is determined that there is sufficient disk space available (such as by directing and/or controlling Akamai to store the requested portion of the video on the Akamai edge server if it is determined that there is sufficient disk space available); and

d. AMC directs and/or controls Akamai, at least via its contract with Akamai and/or its configuration and customization of Akamai's CDN, to, if it is determined that there is insufficient disk space available to store the received SM object, for each of a plurality of SM objects stored in said disk space, delete only a portion of said SM object (such as by directing and/or controlling Akamai to use a caching algorithm to delete the least recently used portion of a multimedia object from a storage device on the Akamai edge server), whereby the deletion of said portions of said SM objects results in sufficient disk space being available for storage of the received SM object.

140. In addition or in the alternative, AMC has induced infringement, and continues to

induce infringement, of one or more claims of the '074 patent under 35 U.S.C. § 271(b), literally and/or under the doctrine of equivalents. AMC has actively, knowingly, and intentionally induced (and continues to induce) infringement of the '074 patent by making, using, offering for sale, selling, supplying, maintaining, and/or supporting the AMC '074 Services; by contracting with the CDNs and configuring the CDNs with the specific intent to cause the CDNs to perform the steps claimed in the '074 patent to deliver the AMC '074 Services to AMC's users, and with the knowledge that such actions infringe the '074 patent.

141. For example, at least through repeated correspondence from Sound View, AMC knows that at least Limelight and Akamai perform the claimed methods of the '074 patent, and that AMC induces the infringement of that CDN. (*See* Exhibit F, incorporated herein by reference.) Moreover, AMC specifically intends that infringement, at least by continuing to contract with and utilize the Limelight CDN, as well as the Akamai CDN, to offer the AMC '074 Services; configuring or customizing the Limelight and Akamai CDNs to perform the claimed methods of the '074 patent; and by encouraging and facilitating their infringement through the use of the AMC '074 Services by AMC's users and/or the creation and dissemination of documentation related to the AMC '074 Services, including by, for example, encouraging and instructing its agents and contractors, such as Limelight and Akamai, to provide video to AMC's users through the AMC '074 Services, causing the performance of the claimed methods with the knowledge that such actions infringe the '074 patent.

142. For example, AMC intends for and induces Limelight to infringe claim 9 of the '074 patent to deliver the AMC '074 Services by using a method for managing storage of a SM object (such as videos) in a network having a content server which hosts SM objects for distribution over said network through a plurality of servers (such as Limelight's CDN with a plurality of edge

servers) to a plurality of clients (such as AMC's users), said method comprising:

a. receiving said SM object (such as the Limelight edge server retrieving the requested portion of a video);

b. determining whether there is a disk space available on one of said plurality of servers (such as by using a caching algorithm to determine whether sufficient disk space is available on a storage device on the Limelight edge server);

c. storing said SM object at said at least one HS if it is determined that there is sufficient disk space available (such as by storing the requested portion of the video on the Limelight edge server if it is determined that there is sufficient disk space available); and

d. if it is determined that there is insufficient disk space available to store the received SM object, for each of a plurality of SM objects stored in said disk space, deleting only a portion of said SM object (such as by using a caching algorithm to delete the least recently used portion of a multimedia object from a storage device on the Limelight edge server), whereby the deletion of said portions of said SM objects results in sufficient disk space being available for storage of the received SM object.

143. As a further example, AMC intends for and induces Akamai to infringe claim 9 of the '074 patent to deliver the AMC '074 Services by using a method for managing storage of a SM object (such as videos) in a network having a content server which hosts SM objects for distribution over said network through a plurality of servers (such as Akamai's CDN with a plurality of edge servers) to a plurality of clients (such as AMC's users), said method comprising:

a. receiving said SM object (such as the Akamai edge server retrieving the requested portion of a video);

b. determining whether there is a disk space available on one of said plurality

of servers (such as by using a caching algorithm to determine whether sufficient disk space is available on a storage device on the Akamai edge server);

c. storing said SM object at said at least one HS if it is determined that there is sufficient disk space available (such as by storing the requested portion of the video on the Akamai edge server if it is determined that there is sufficient disk space available); and

d. if it is determined that there is insufficient disk space available to store the received SM object, for each of a plurality of SM objects stored in said disk space, deleting only a portion of said SM object (such as by using a caching algorithm to delete the least recently used portion of a multimedia object from a storage device on the Akamai edge server), whereby the deletion of said portions of said SM objects results in sufficient disk space being available for storage of the received SM object.

144. Sound View has been and continues to be damaged by AMC's infringement of the '074 patent and is entitled to recover from AMC the damages sustained by Sound View as a result of AMC's wrongful acts in an amount adequate to compensate Sound View for AMC's infringement subject to proof at trial.

145. In committing these acts of infringement, AMC committed egregious misconduct including, for example, acting despite knowing that its actions constituted infringement of a valid patent, or recklessly disregarding the fact that its actions constituted an unjustifiably high risk of infringement of a valid and enforceable patent.

146. AMC's infringement of the '074 patent was and is deliberate and willful, entitling Sound View to increased damages under 35 U.S.C. § 284 and to attorney fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

RELIEF REQUESTED

Wherefore, Sound View respectfully requests that this Court enter judgment against AMC as follows:

a) that AMC has infringed each of the Patents-in-Suit;

b) that AMC's infringement of the '213, '796, and '074 patents is and has been willful;

c) that Sound View be awarded damages in accordance with 35 U.S.C. § 284, including treble damages and, if necessary to adequately compensate Sound View for AMC's infringement, an accounting;

d) that this case is exceptional under 35 U.S.C. § 285;

e) that Sound View be awarded the attorney's fees, costs, and expenses that it incurs in prosecuting this action; and

f) that Sound View be awarded further relief at law or in equity as the Court deems just and proper.

DEMAND FOR JURY TRIAL

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

Dated: January 25, 2019

By: */s/ John C. Phillips, Jr.*

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