

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

DISTRIBUTED MEDIA SOLUTIONS,
LLC,

Plaintiff,

v.

AMC NETWORKS INC.,

Defendant.

CIVIL ACTION NO.

JURY TRIAL DEMANDED

PLAINTIFF’S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Distributed Media Solutions, LLC (“DMS” or “Plaintiff”) files this Complaint for patent infringement against AMC Networks Inc. (“AMC” or “Defendant”) and states as follows:

NATURE OF THE ACTION

1. This is a civil action for patent infringement under the patent laws of the United States of America, 35 U.S.C. § 1 *et seq.*

2. DMS is the owner of all right, title, and interest in U.S. Patent Nos. 6,697,811 (“the ’811 Patent”), 7,133,922 (“the ’922 Patent”), 7,739,714 (“the ’714 Patent”), 8,046,672 (“the ’672 Patent”), 8,122,004 (“the ’004 Patent”), 8,437,389 (“the ’389 Patent”) and 8,482,384 (“the ’ 384 Patent”) (collectively, “the Asserted Patents”), which have been attached as Exhibits A-G and incorporated herein by reference.

3. Defendant AMC has infringed and continues to infringe one or more claims of the Asserted Patents by making, using, offering to sell, and selling within the United States, including in this District, certain products and services, including through its AMC+ product and service. DMS seeks to recover monetary damages, attorneys’ fees, and costs.

THE PARTIES

4. DMS is a Georgia limited liability company with a principal place of business at 4725 Peachtree Corners Circle, Suite 230, Peachtree Corners, GA 30092.

5. On information and belief, Defendant AMC Networks Inc. is a company organized under the laws of Delaware, with its principal place of business at 11 Penn Plaza, New York, NY 10001. On information and belief, Defendant AMC offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Delaware and in this District.

JURISDICTION AND VENUE

6. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. This Court has personal jurisdiction over AMC in accordance with due process because, among other things, AMC does business in this State. For example, AMC has engaged, and continues to engage, in continuous, systematic, and substantial activities with this State, including the substantial marketing, use, and sale of products and services with this State and this District. This Court has personal jurisdiction over AMC because it has committed acts giving rise to DMS's claims for patent infringement within and directed to this District and has derived substantial revenue from its goods and services provided to individuals in this State and this District.

8. Defendant has committed and continues to commit acts of infringement in violation of 35 U.S.C. § 271 within the District of Delaware. Defendant has in the past made, used, marketed, distributed, offered for sale, sold, and/or imported infringing products, and performed infringing methods, in the State of Delaware and in this District. Defendant continues to make,

use, market, distribute, offer for sale, sell, and/or import infringing products, and perform infringing methods, in the State of Delaware and in this District. Accordingly, Defendant has in the past engaged, and continues to engage, in infringing conduct within and directed at or from this District. Additionally, Defendant has purposefully and voluntarily placed its infringing products into the stream of commerce with the expectation that its infringing products will be used in this District. The infringing products have been and continue to be distributed to and used in this District. Defendant's acts have caused, and continue to cause, injury to Plaintiff, including within this District.

9. Venue is proper in this District under the provisions of 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b) at least because AMC is a corporation organized under the laws of Delaware.

U.S. PATENT NO. 6,697,811

10. On September 18, 2018, the United States Patent and Trademark Office duly and legally issued the '811 Patent, entitled "Method and System for Information Management and Distribution" after a full and fair examination.

11. Exhibit A is a true and correct copy of the '811 Patent.

12. The '811 Patent is valid and enforceable under United States patent laws.

13. Plaintiff is the owner of the '811 Patent, having received all right, title and interest in and to the '811 Patent from the previous assignee of record.

14. Plaintiff possesses all rights of recovery under the '811 Patent, including the exclusive right to recover for past infringement.

U.S. PATENT NO. 7,133,922

15. On November 7, 2006, the United States Patent and Trademark Office duly and legally issued the '922 Patent, entitled "Method and Apparatus for Streaming of Data" after a full and fair examination.

16. Exhibit B is a true and correct copy of the '922 Patent.

17. The '922 Patent is valid and enforceable under United States patent laws.

18. Plaintiff is the owner of the '922 Patent, having received all right, title and interest in and to the '922 Patent from the previous assignee of record.

19. Plaintiff possesses all rights of recovery under the '922 Patent, including the exclusive right to recover for past infringement.

U.S. PATENT NO. 7,739,714

20. On June 15, 2010, the United States Patent and Trademark Office duly and legally issued the '714 Patent, entitled "System for Transmitting Digital Data Over a Limited Bandwidth Link in Plural Blocks" after a full and fair examination.

21. Exhibit C is a true and correct copy of the '714 Patent.

22. The '714 Patent is valid and enforceable under United States patent laws.

23. Plaintiff is the owner of the '714 Patent, having received all right, title and interest in and to the '714 Patent from the previous assignee of record.

24. Plaintiff possesses all rights of recovery under the '714 Patent, including the exclusive right to recover for past infringement.

U.S. PATENT NO. 8,046,672

25. On October 25, 2011, the United States Patent and Trademark Office duly and legally issued the '672 Patent, entitled "Method and System for Delivering Technology Agnostic Rich Media Content with an Email, Banner Ad, and Web Page" after a full and fair examination.

26. Exhibit D is a true and correct copy of the '672 Patent.

27. The '672 Patent is valid and enforceable under United States patent laws.

28. Plaintiff is the owner of the '672 Patent, having received all right, title and interest in and to the '672 Patent from the previous assignee of record.

29. Plaintiff possesses all rights of recovery under the '672 Patent, including the exclusive right to recover for past infringement.

U.S. PATENT NO. 8,122,004

30. On February 21, 2012, the United States Patent and Trademark Office duly and legally issued the '004 Patent, entitled "Generating and Providing Rich Media Presentations Optimized for a Device Over a Network" after a full and fair examination.

31. Exhibit E is a true and correct copy of the '004 Patent.

32. The '004 Patent is valid and enforceable under United States patent laws.

33. Plaintiff is the owner of the '004 Patent, having received all right, title and interest in and to the '004 Patent from the previous assignee of record.

34. Plaintiff possesses all rights of recovery under the '004 Patent, including the exclusive right to recover for past infringement.

U.S. PATENT NO. 8,437,389

35. On May 7, 2013, the United States Patent and Trademark Office duly and legally issued the '389 Patent, entitled "Statistic Remultiplexing of Compressed Video Segments" after a full and fair examination.

36. Exhibit F is a true and correct copy of the '389 Patent.

37. The '389 Patent is valid and enforceable under United States patent laws.

38. Plaintiff is the owner of the '389 Patent, having received all right, title and interest in and to the '389 Patent from the previous assignee of record.

39. Plaintiff possesses all rights of recovery under the '389 Patent, including the exclusive right to recover for past infringement.

U.S. PATENT NO. 8,482,384

40. On July 9, 2013, the United States Patent and Trademark Office duly and legally issued the '384 Patent, entitled "Method and System for Playing Signals at Two Appliances" after a full and fair examination.

41. Exhibit G is a true and correct copy of the '384 Patent.

42. The '384 Patent is valid and enforceable under United States patent laws.

43. Plaintiff is the owner of the '384 Patent, having received all right, title and interest in and to the '384 Patent from the previous assignee of record.

44. Plaintiff possesses all rights of recovery under the '384 Patent, including the exclusive right to recover for past infringement.

THE ASSERTED PATENTS

45. The claims of the Asserted Patents are directed to patent-eligible, non-abstract subject matter under 35 U.S.C. § 101. They are not directed to abstract ideas, and the claimed technology consists of ordered combinations of features and functions that, at the time of the invention, were not, alone or in combination, well-understood, routine, or conventional. Instead, one of skill in the art would recognize that the Asserted Patents are directed to technical and unconventional solutions to shortcomings of the prior art.

46. One of skill in the art would recognize the specifications of the Asserted Patents disclose shortcomings in the prior art and further explain, in detail, the technical and unconventional way the claimed inventions resolve or overcome these shortcomings.

47. For example, the '811 Patent explains that "private or special purpose networks may be located globally and may be developed and operated by different organizations." '811 Patent at 1:16-18. As part of the solution to this problem, the '811 Patent discloses an invention including a "multi-access manager (MAM)" that is coupled to remote source servers and endpoints that provides a "centralized management but decentralized execution of information distribution." *Id.* at 3:11-21.

48. The '922 Patent explains that a disadvantage with conventional streaming technology is that "current streaming techniques use a point-to-point approach that does not scale well with increasing numbers of users." '922 Patent at 1:46-48. The patent seeks to solve this problem, in part, by providing "an intelligent gateway at the edge of a group of users (such as an Intranet) through which requests for streaming data and the resulting data streams all pass." *Id.* at 5:6-9.

49. The '714 Patent notes that "[i]n view of the multitude of bandwidths present in complex client/server systems today and the large amounts of data necessary to produce compelling audio, video and imaging presentations, there is a pressing demand for scalable data representation of multimedia data, so that it can be delivered for on-line interactive playback in such a form that the transmission rate can accommodate the client bandwidth." '714 Patent at 2:30-37. The patent seeks to solve this problem, in party, by providing "a scalable representation, so that the data can be asynchronously transmitted to clients having different bandwidth

connections, played on-line almost immediately after the transmission begins, interactively controlled, and also progressively upgraded as it is replayed.” *Id.* at 18:57-62.

50. The ‘004 and ‘672 Patents explain that one problem with existing systems was that the number of different systems and media files available resulted in users being “constantly bombarded with different requirements” to receive and play those files. ‘004 Patent at 1:20-52. This problem was solved, in part, through the use of an “attribute inquiry system” that determines certain configuration information prior to providing the requested content. *Id.* at 13:28-63.

51. The ‘389 Patent explains that “[f]or the service provider to deliver digital video content to users, it is frequently necessary to adjust the bit rate of an encoded bitstream.” ‘389 Patent at 2:23-25. “One problem with conventional digital video distribution systems is that a conventional transrating multiplexer [] is needed to fill each fixed bandwidth channel that is provisioned for digital video delivery.” *Id.* at 3:47-50. The patent describes a solution for “remultiplexing compressed digital video capable of near real-time operation.” *Id.* at 3:66-67.

52. The ‘384 Patent explains that there is a need to provide timely information to users. ‘384 Patent at 1:32-35. This problem was solved, in part, by enabling communication at one device to be resumed in a second device. *Id.* at 1:53-56.

AMC’S INFRINGING PRODUCTS AND ACTIVITIES

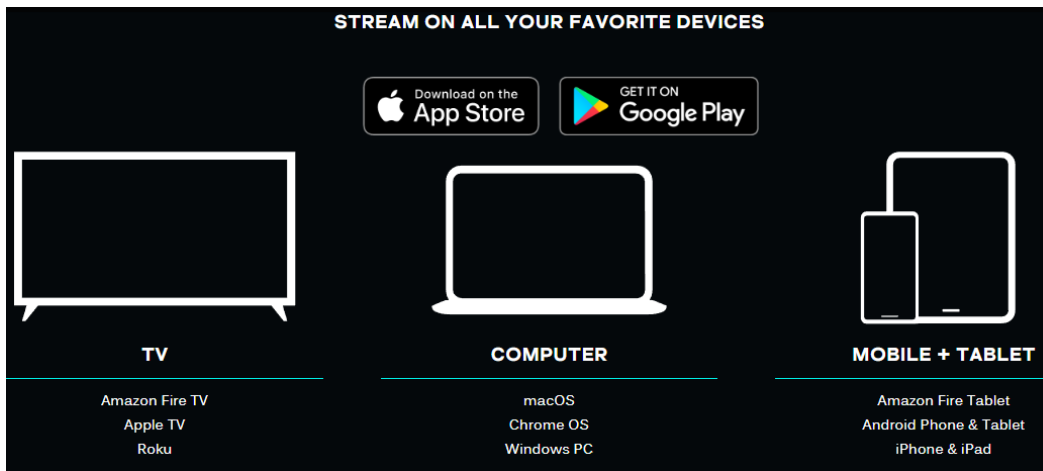
53. AMC provides AMC+, an on-demand video-streaming platform (“the Accused Product”) that enables its users to stream video content from multiple sources.

WHAT IS AMC+?

AMC+ is a new premium streaming bundle that includes the the best of AMC, BBC America, IFC, and Sundance TV - with full access to Shudder, Sundance Now, and IFC Films Unlimited. Thousands of hours of incredible content, on demand, all in one place, with new shows and movies added every week.

<https://www.ameplus.com/> (last visited 9/15/2022).

54. The Accused Product allows for the streaming of video content on a television, computer, or mobile device.



<https://www.amcplus.com/> (last visited 9/20/2022).

55. In addition, the Accused Product is enabled to be implemented in a browser of a computer. When run on a browser, the Accused Product ascertains certain browser and/or system information to make determinations regarding the content provided to the browser.

56. The Accused Product implements MPEG-DASH to stream video content.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6,697,811

57. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

58. Defendant has directly infringed at least claim 1 of the '811 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

59. Defendant has directly infringed at least claim 1 of the '811 Patent by performing all the limitations of that claim. For example, claim 1 of the '811 Patent recites:

A method for managing and distributing information with a system, comprising:
receiving from a user at a multi-access manager a request for access to the system;

determining whether the request for access to the system comprises an approved access at the multi-access manager;

displaying in response to an approved access a catalogue of at least one source server, wherein each source server couples to a respective information source, and wherein each source server has authorized the user to access data stored at the coupled respective information source;

receiving a source server selection from the user, wherein the source server selection comprises a source server selected from the catalogue of at least one source server;

providing access for the user to the selected source server;

receiving a request from the user for data at the selected source server, wherein the request for data requests data accumulated in a first format at the information source coupled to the selected source server; and

transmitting the data from the selected source server to the user.

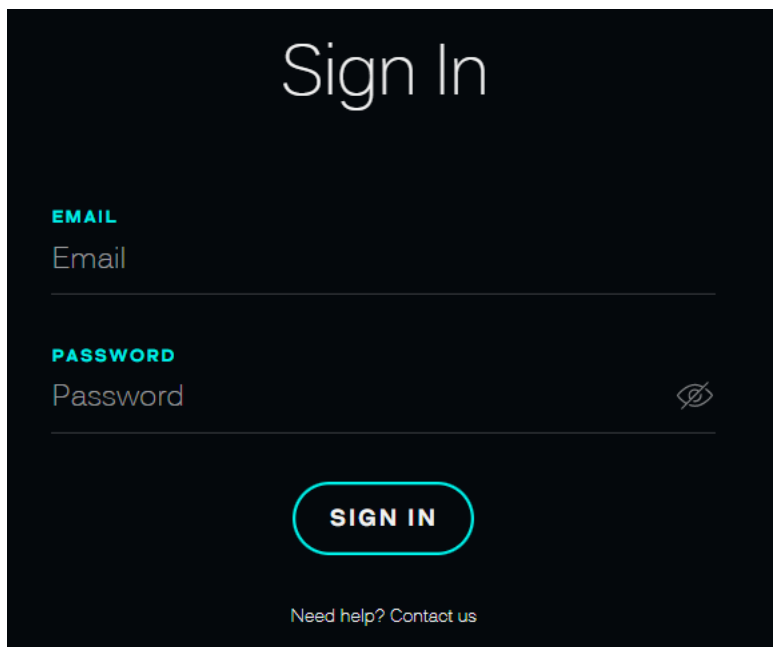
60. As in claim 1 of the '811 Patent, the Accused Product practices a method for managing and distributing information (*e.g.*, video content) with a system.

WHAT IS AMC+?

AMC+ is a new premium streaming bundle that includes the the best of AMC, BBC America, IFC, and Sundance TV - with full access to Shudder, Sundance Now, and IFC Films Unlimited. Thousands of hours of incredible content, on demand, all in one place, with new shows and movies added every week.

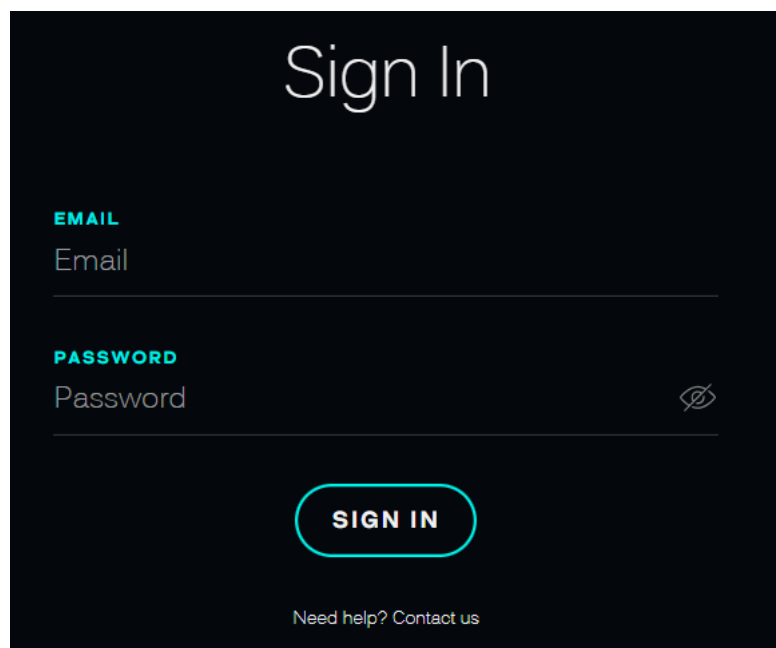
<https://www.amcplus.com/> (last visited 9/15/2022).

61. As in claim 1 of the '811 Patent, the Accused Product receives from a user at a multi-access manager (*e.g.*, the login screen of the AMC+ website or application) a request for access to the system.



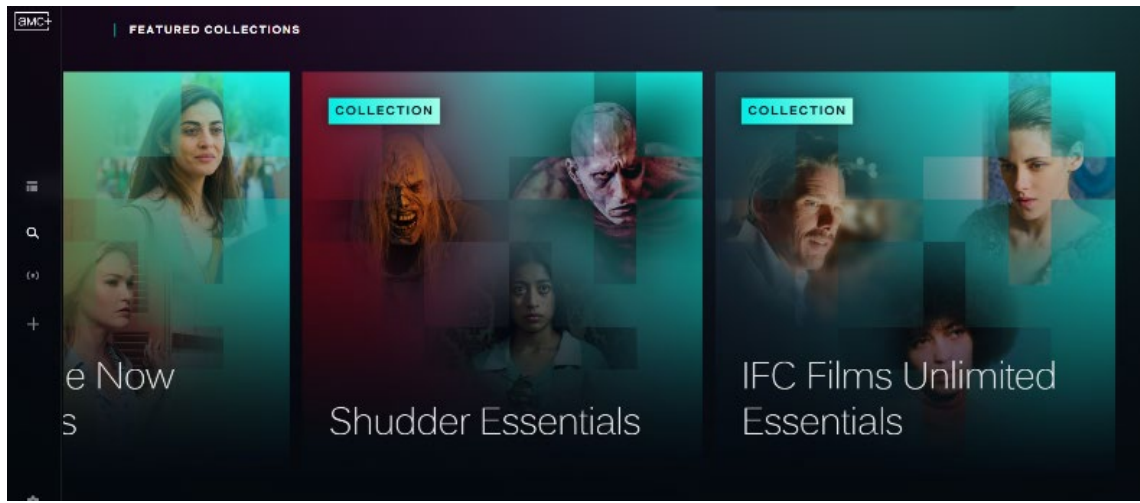
<https://www.amcplus.com/login> (last visited 9/15/2022).

62. As in claim 1 of the '811 Patent, the Accused Product determines whether the request for access to the system comprises an approved access at the multi-access manager. For example, the Accused Product determines whether a user has access to the system.



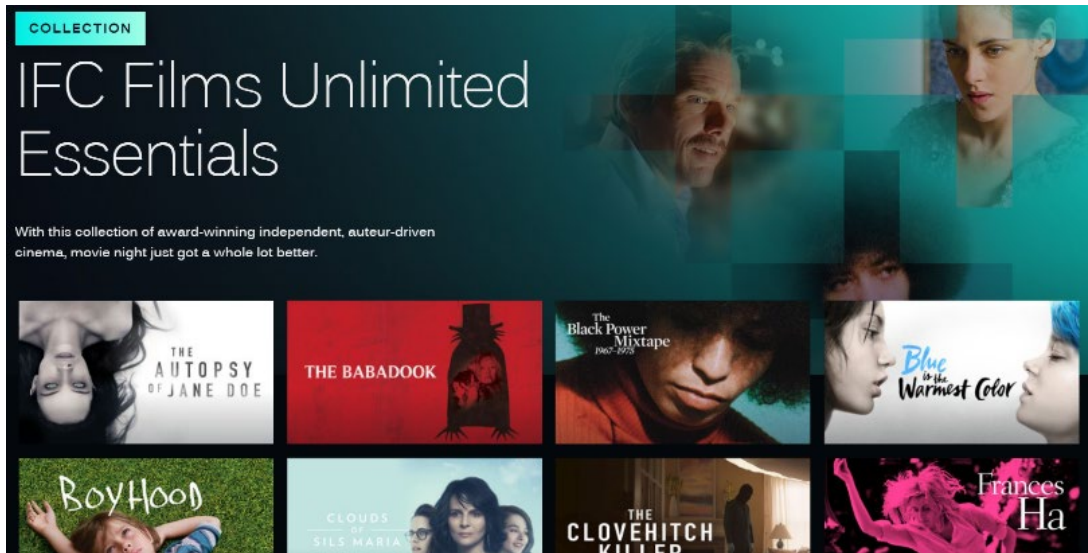
<https://www.amcplus.com/login> (last visited 9/15/2022).

63. As in claim 1 of the '811 Patent, the Accused Product displays in response to an approved access a catalogue of at least one source server, wherein each source server couples to a respective information source, and wherein each source server has authorized the user to access data stored at the coupled respective information source. For example, the Accused Product includes collections of video content.



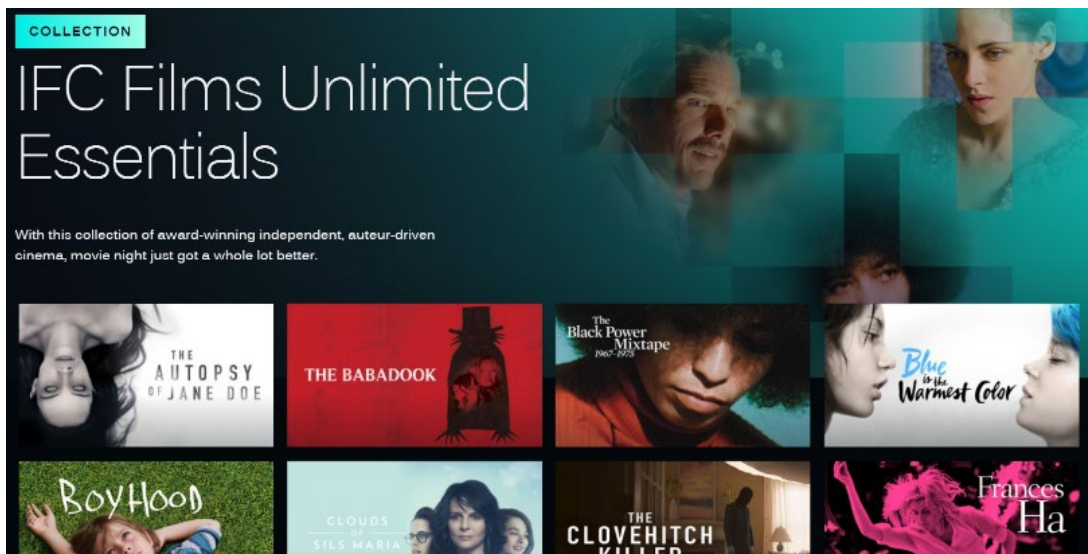
<https://www.amcplus.com/explore/collections> (last visted 9/15/2022).

64. As in claim 1 of the '811 Patent, the Accused Product receives a source server selection from the user (e.g., selection of a specific video collection), wherein the source server selection comprises a source server selected from the catalogue of at least one source server.



<https://www.amcplus.com/collections/ifc-films-unlimited-essentials--1027479> (last visited 9/15/2022).

65. As in claim 1 of the '811 Patent, the Accused Product provides access for the user to the selected source server.



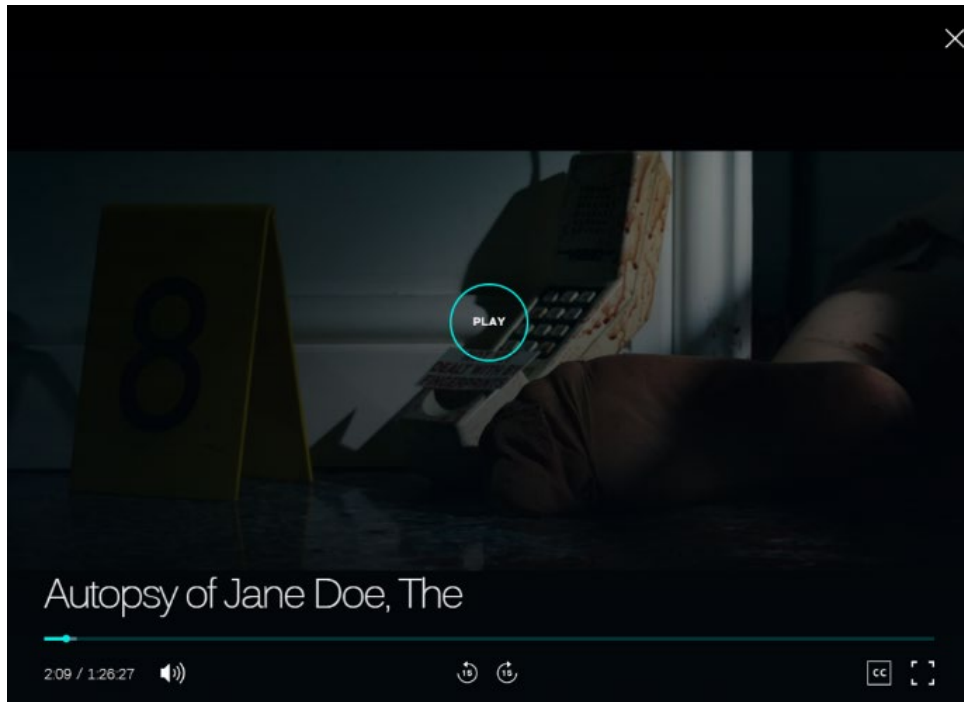
<https://www.amcplus.com/collections/ifc-films-unlimited-essentials--1027479> (last visited 9/15/2022).

66. As in claim 1 of the '811 Patent, the Accused Product receives a request from the user for data (e.g., video content) at the selected source server, wherein the request for data requests

data accumulated in a first format (e.g., MPEG-DASH) at the information source coupled to the selected source server.

The screenshot shows a web browser's developer tools interface. The top section displays an HTTP GET request to a URL from 'ssaifest.prod.boltdns.net'. The request headers include 'Connection: keep-alive', 'sec-ch-ua: "Chromium";v="104", " Not A;Brand";v="99", "Google Chrome";v="104"', 'User-Agent: Mozilla/5.0 (Windows NT 10.0; win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/104.0.0.0 Safari/537.36', and 'Accept: */*'. The bottom section shows the XML response, which is an MPEG-DASH manifest. The XML includes metadata such as 'profiles="urn:mpeg:dash:profile:isoff-live:2011"', 'mediaPresentationDuration="PT1H26M27.328S"', and 'startWithSAP="1" segmentAlignment="true" lang="en"'. It also contains a content protection scheme: 'cenc:urn:mpeg:cenc:2013'.

67. As in claim 1 of the ‘811 Patent, the Accused Product transmits the data from the selected source server to the user.



<https://www.amcplus.com/watch/movies/autopsy-of-jane-doe-the--1026782> (last visited 9/15/2022).

68. Defendant makes, uses, sells, and/or offers to sell the Accused Product which practices at least claim 1 of the '811 Patent.

69. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '811 Patent, including through its own use, testing, and sale of the Accused Products.

70. Defendant has had knowledge of infringement of the '811 Patent at least as of the service of the present Complaint.

71. Defendant has directly infringed at least one claim of the '811 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '811 Patent, DMS has been damaged.

72. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '811 Patent, pursuant to 35 U.S.C. § 271.

73. Defendant has committed these acts of infringement without license or authorization.

74. As a result of Defendant's infringement of the '811 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

75. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 7,133,922

76. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

77. Defendant has directly infringed at least claim 18 of the '922 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

78. Defendant has directly infringed at least claim 18 of the '922 Patent by performing all the limitations of that claim. For example, claim 18 of the '922 Patent recites:

A method for providing streaming data from a server to multiple clients, comprising

locating a plurality of gateways between said server and said clients, each said client being associated with one said gateway,

sourcing a data stream from a server or another gateway in the event that a request for a stream is a first request to a said gateway for a said stream,

supplying a data stream from the said gateway to a second or subsequent client requesting a data stream,

deciding whether a neighbouring gateway exists from which a first requested data stream may be obtained,

selecting between two or more gateways that are possible sources of a requested data stream by interrogating said possible sources about the loading of the possible source gateways, quality of the data stream and the communication latency between the gateway and the possible source gateways.

79. As in claim 18 of the '922 Patent, the Accused Product practices a method for providing streaming data (*e.g.*, video content) from a server to multiple clients.

WHAT IS AMC+?

AMC+ is a new premium streaming bundle that includes the the best of AMC, BBC America, IFC, and Sundance TV - with full access to Shudder, Sundance Now, and IFC Films Unlimited. Thousands of hours of incredible content, on demand, all in one place, with new shows and movies added every week.

<https://www.amcplus.com/> (last visited 9/15/2022).

80. As in claim 18 of the '922 Patent, the Accused Product locates a plurality of gateways between said server and said clients, each said client being associated with one said gateway. For example, the Accused Product uses an Akamai Content Delivery Network.

#	Result	Protocol	Host	URL
96	200	HTTPS	amcplus-a.akamaized.net	/composite-media/v1/dash/live/...
97	200	HTTPS	amcplus-a.akamaized.net	/composite-media/v1/dash/live/...
98	200	HTTPS	infinity-c11.youboranqs0...	/ping?diffTime=5008&entities=...
99	200	HTTPS	amcplus-a.akamaized.net	/composite-media/v1/dash/live/...
100	200	HTTPS	amcplus-a.akamaized.net	/composite-media/v1/dash/live/...
101	200	HTTP	Tunnel to	bam.nr-data.net:443

Headers	TextView	SyntaxView	WebForms	HexView	Auth	Cookies	Raw	JSON	XML
<pre> GET https://amcplus-a.akamaized.net/composite-media/v1/dash/live/bccenc/6245817279001/ba7cc5bc-d318-43d8-a928- a5481968640b/2481aa0b-e8bc-4e4f-8c41-e316a3c67c3e/a64fbb25-d95f-4bb9-a15c-c2a4322f1133/init.m4f? akamai_token=exp=1661159166-ac1=/composite-media/v1/dash/live/bccenc/6245817279001/ba7cc5bc-d318-43d8-a928- a5481968640b/2481aa0b-e8bc-4e4f-8c41-e316a3c67c3e/a64fbb25-d95f-4bb9-a15c-c2a4322f1133/init.m4f~hmac= 2f80ads101c0184d8f9d5d512831691c9ef31db0fa4e5e5265fcf641ecd26c01 HTTP/1.1 Host: amcplus-a.akamaized.net Connection: keep-alive sec-ch-ua: "Chromium";v="104", " Not A;Brand";v="99", "Google Chrome";v="104" sec-ch-ua-mobile: ?0 User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/104.0.0.0 Safari/537.36 sec-ch-ua-platform: "Windows" </pre>									

Transformer	Headers	TextView	SyntaxView	ImageView	HexView	WebView	Auth	Caching	Cookies	Raw	JSON	XML
<pre> HTTP/1.1 200 OK Content-Length: 1975 ETag: "c1310d5a43c8e009296ac0cab0a93fe7" Last-Modified: Fri, 01 Jan 2016 00:00:00 GMT X-Powered-By: BC X-Powered-From: gantry X-Amz-Cf-Pop: EWR52-C4 X-Amz-Cf-Id: ZgOrCytFvAfeBfuIfvy1VsrAXQERm0ghhuyQwx5Xo7NjpcPzmHAsWA== Backend-IP: 99.84.47.57 Accept-Ranges: bytes X-Served-By: cache-ewr18138-EWR X-Cache-Hits: 1 X-Timer: S1661158868.496941,V50,VE1 BC-MID: true Cache-Control: public, max-age=29914257 Expires: Thu, 03 Aug 2023 14:32:05 GMT Date: Mon, 22 Aug 2022 09:01:08 GMT Connection: keep-alive Akamai-Mon-Iucid-De1: 1165601 Alt-Svc: h3-Q050=":443"; ma=93600,quic=":443"; ma=93600; v="46,43" Content-Type: video/mp4 Access-Control-Max-Age: 86400 Access-Control-Allow-Credentials: true Access-Control-Expose-Headers: Server,range,hdnt1,hdnts,Akamai-Mon-Iucid-Ing,Akamai-Mon-Iucid-De1,Akamai- Request-BC Access-Control-Allow-Headers: origin,range,hdnt1,hdnts Access-Control-Allow-Methods: GET,POST,OPTIONS </pre>												

Additionally, the Akamai CDN, for example, associates a client to an edge server.

Connecting to an Akamai Edge Server

Fundamentally, the Akamai Intelligent Platform improves user experience by serving your content from an Akamai edge server that is physically close to the user, no matter where in the world that user is. This is why there are so many servers in the Akamai Intelligent Platform.

In order for a user to retrieve your content from an Akamai edge server close to that user, when the user makes a request to www.example.com, somehow that request needs to arrive at the Akamai edge server instead of at www.example.com. This re-routing of requests is done via DNS, the Domain Name System. Customers often publish their content at an Akamai hostname, for example www.example.com.edgesuite.net. When the browser looks up this hostname, the user's DNS server will contact Akamai's DNS servers. Akamai DNS servers are typically deployed in layers: the first layer is named a Top Level Name Server (TLNS), which talk to the lower layers which are composed of Low Level Name Servers (LLNS).

Our TLNS servers will try to locate an Akamai server deployment near the user. The user's DNS server is used as a proxy for the actual location of the user. Once a server deployment has been chosen, the TLNS server will provide a pointer to the LLNS server within that deployment.

The user's DNS server will then contact the LLNS server in order to learn the IP address of the edge server in that deployment which can serve the customer's content.

After learning the IP address of an edge server, the user will open a connection to that server and request the content.

https://developer.akamai.com/legacy/learn/Overview/Client_Edge_Servers_Origin.html (last visited 9/20/2022).

81. As in claim 18 of the '922 Patent, the Accused Product sources a data stream from a server or another gateway in the event that a request for a stream is a first request to a said gateway for a said stream.

Locating an object

The edge server will check its local cache as well as the caches of other machines in the server deployment to see if the requested object has been seen before. If the object is found, the edge server will verify that the object is not stale and will serve it to the user.

If the object is found in the cache but it is stale, the edge server will contact another Akamai deployment or the origin to see if a newer version has been uploaded.

Origin retrieval and tiered distribution

When an edge server gets a request for an object that it hasn't yet seen, it will download it from either another Akamai deployment or the origin. The customer's metadata determines whether the edge contacts the origin directly, or if it applies some sort of tiered distribution hierarchy.

Tiered distribution is used to provide greater origin offload by allowing many Akamai edge deployments to go forward to a smaller set of deployments which in turn go forward to the origin. In the case of Akamai's Site Shield product, the Customer's IT department can program the IP addresses of these top-tier machines into their firewall and block access to their network from all other Internet hosts.

At this point, caching rules are applied to the object and the requested bytes are delivered to the user.

https://developer.akamai.com/legacy/learn/Overview/Client_Edge_Servers_Origin.html (last visited 9/20/2022).

82. As in claim 18 of the '922 Patent, the Accused Product supplies a data stream from the said gateway to a second or subsequent client requesting a data stream.

Locating an object

The edge server will check its local cache as well as the caches of other machines in the server deployment to see if the requested object has been seen before. If the object is found, the edge server will verify that the object is not stale and will serve it to the user.

If the object is found in the cache but it is stale, the edge server will contact another Akamai deployment or the origin to see if a newer version has been uploaded.

Origin retrieval and tiered distribution

When an edge server gets a request for an object that it hasn't yet seen, it will download it from either another Akamai deployment or the origin. The customer's metadata determines whether the edge contacts the origin directly, or if it applies some sort of tiered distribution hierarchy.

Tiered distribution is used to provide greater origin offload by allowing many Akamai edge deployments to go forward to a smaller set of deployments which in turn go forward to the origin. In the case of Akamai's Site Shield product, the Customer's IT department can program the IP addresses of these top-tier machines into their firewall and block access to their network from all other Internet hosts.

At this point, caching rules are applied to the object and the requested bytes are delivered to the user.

https://developer.akamai.com/legacy/learn/Overview/Client_Edge_Servers_Origin.html (last visited 9/20/2022).

83. As in claim 18 of the '922 Patent, the Accused Product decides whether a neighbouring gateway exists from which a first requested data stream may be obtained.

Locating an object

The edge server will check its local cache as well as the caches of other machines in the server deployment to see if the requested object has been seen before. If the object is found, the edge server will verify that the object is not stale and will serve it to the user.

If the object is found in the cache but it is stale, the edge server will contact another Akamai deployment or the origin to see if a newer version has been uploaded.

Origin retrieval and tiered distribution

When an edge server gets a request for an object that it hasn't yet seen, it will download it from either another Akamai deployment or the origin. The customer's metadata determines whether the edge contacts the origin directly, or if it applies some sort of tiered distribution hierarchy.

Tiered distribution is used to provide greater origin offload by allowing many Akamai edge deployments to go forward to a smaller set of deployments which in turn go forward to the origin. In the case of Akamai's Site Shield product, the Customer's IT department can program the IP addresses of these top-tier machines into their firewall and block access to their network from all other Internet hosts.

At this point, caching rules are applied to the object and the requested bytes are delivered to the user.

https://developer.akamai.com/legacy/learn/Overview/Client_Edge_Servers_Origin.html (last visited 9/20/2022).

84. As in claim 18 of the '922 Patent, the Accused Product selects between two or more gateways that are possible sources of a requested data stream by interrogating said possible sources about the loading of the possible source gateways, quality of the data stream and the communication latency between the gateway and the possible source gateways.

How It Works

Simply upload content to a designated online directory using one of many standard upload transport protocols, such as SFTP, or with the higher-performance optional Aspera Upload acceleration feature. NetStorage replicates the content immediately to two or more geographically diverse locations, not only for reliability but also to place the content as close as possible to users. When a user requests content, the Akamai Intelligent Edge Platform automatically selects the copy from the location providing the best performance for a fast, high-quality user experience.

For your online content delivery solution, quality and performance are paramount for end user satisfaction and engagement. NetStorage is designed to operate in concert with Akamai's delivery to specifically provide the highest performance, reliability, and availability ("uptime") possible for your online delivery applications.



1. Customers upload content to the closest NetStorage data center using any of the supported methods: FTP, SFTP, FTPS, SCP, RSYNC, RSYNC over SSH, WGET, NetStorage HTTP API, File Manager (web UI available on the Akamai Luna Control Center), Aspera Upload Acceleration, CMS shell, etc.

2. NetStorage automatically replicates content to the other geographically distributed data centers configured to host that content.

3. Content is delivered to end users worldwide with the best performance thanks to the global Akamai Intelligent Edge Platform.

<https://www.akamai.com/site/en/documents/product-brief/netstorage-product-brief.pdf> (last visited 9/20/2022).

85. Defendant makes, uses, sells, and/or offers to sell the Accused Product which practices at least claim 18 of the '922 Patent.

86. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '922 Patent, including through its own use, testing, and sale of the Accused Products.

87. Defendant has had knowledge of infringement of the '922 Patent at least as of the service of the present Complaint.

88. Defendant has directly infringed at least one claim of the '922 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '922 Patent, DMS has been damaged.

89. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '922 Patent, pursuant to 35 U.S.C. § 271.

90. Defendant has committed these acts of infringement without license or authorization.

91. As a result of Defendant's infringement of the '922 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

92. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 7,739,714

93. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

94. Defendant has directly infringed at least claim 9 of the '714 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

95. Defendant has directly infringed at least claim 9 of the '714 Patent by implementing a system that includes all the limitations of that claim. For example, claim 9 of the '714 Patent recites:

An object movie processing system for encoding a digital object movie, storing it on a server computer and delivering it to client computers on-line upon request, the system comprising:

a processor and memory;

an encoder for compressing a digital object movie into a series of encoded data blocks stored in a database, each block comprising a sequence of encoded frames;

a storage device that stores the database on a server computer;

a processing unit for accepting a request by a client computer for on-line delivery of the object movie and for determining one or more data blocks to transmit based on a bandwidth associated with the client computer;

a transmitter for delivering the determined data blocks to the client computer;

a decoder for decompressing the data blocks back into object movie data at the client computer;

an accumulator for ordering the data blocks at the client computer to reconstruct the original digital object movie; and

a player on the client computer for playing the reconstructed digital object movie.

96. As in claim 9 of the '714 Patent, the Accused Product is a system for encoding a digital object movie, storing it on a server computer and delivering it to client computers on-line upon request.

WHAT IS AMC+?

AMC+ is a new premium streaming bundle that includes the the best of AMC, BBC America, IFC, and Sundance TV - with full access to Shudder, Sundance Now, and IFC Films Unlimited. Thousands of hours of incredible content, on demand, all in one place, with new shows and movies added every week.

<https://www.amcplus.com/> (last visited 9/15/2022).

97. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes a processor and memory.

98. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes an encoder for compressing a digital object movie into a series of encoded data blocks stored in a database, each block comprising a sequence of encoded frames. For example, the Accused Product implements MPEG-DASH.

#	Result	Protocol	Host	URL	Bo
 172	200	HTTP	Tunnel to	umwatson.events.data.microsoft.com:443	1,4
 173	200	HTTPS	amcplus-a.akama...	/composite-media/v1/dash/live/bccenc/6245817279001/...	96,5
 174	200	HTTPS	amcplus-a.akama...	/composite-media/v1/dash/live/bccenc/6245817279001/...	8,69,

Scope of MPEG-DASH

Figure 2 illustrates a simple streaming scenario between an HTTP server and a DASH client. In this figure, the multimedia content is captured and stored on an HTTP server and is delivered using HTTP. The content exists on the server in two parts: 1) Media Presentation Description (MPD) which describes a manifest of the available content, its various alternatives, their URL addresses and other characteristics, and 2) Segments which contain the actual multimedia bitstreams in form of chunks, in single or multiple files.

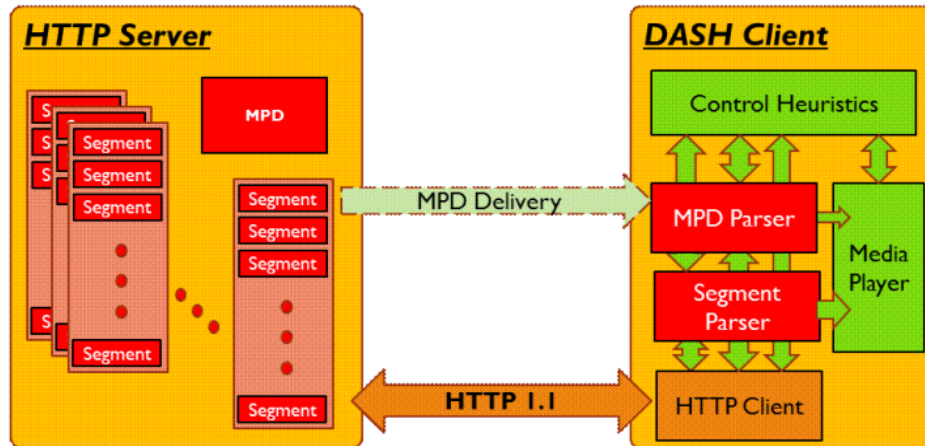


Figure 2. Scope of the MPEG-DASH Standard. The formats and the functionalities of the red blocks are defined by the specification. The clients control heuristics and media players are not within the scope of the standard.

In order to play the content, the DASH client first obtains the MPD. The MPD can be delivered using HTTP, email, thumb drive, broadcast or other transports. By parsing the MPD, the DASH client learns about the timing of the program, the availability of media content, the media types, resolutions, minimum and maximum bandwidths and the existence of various encoded alternatives of multimedia components, the accessibility features and the required digital right management (DRM), the location of each media component on the network and other characteristic of the content. Using this information, the DASH client selects the appropriate encoded alternative and starts streaming of the content by fetching the segments using HTTP GET requests.

https://www.bogotobogo.com/VideoStreaming/images/mpeg_dash/DASH-IEEE-multimedia-preprint.pdf (last visited 9/21/2022).

99. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes a storage device that stores the database on a server computer.

Figure 1 shows a possible deployment architecture in which the formats defined in this document may be used. Boxes with solid lines indicate devices that are mentioned in this document as they host or process the formats defined in this document whereas dashed boxes are conceptual or transparent. This document deals with the definition of formats that are accessible on the interface to the DASH Client, indicated by the solid lines. Any other formats or interfaces are outside the scope of this document. In the considered deployment scenario, it is assumed that the DASH Client has access to an MPD. The MPD provides sufficient information for the DASH Client to provide a streaming service to the user by requesting Segments from an HTTP server and demultiplexing, decoding and rendering the included media streams.

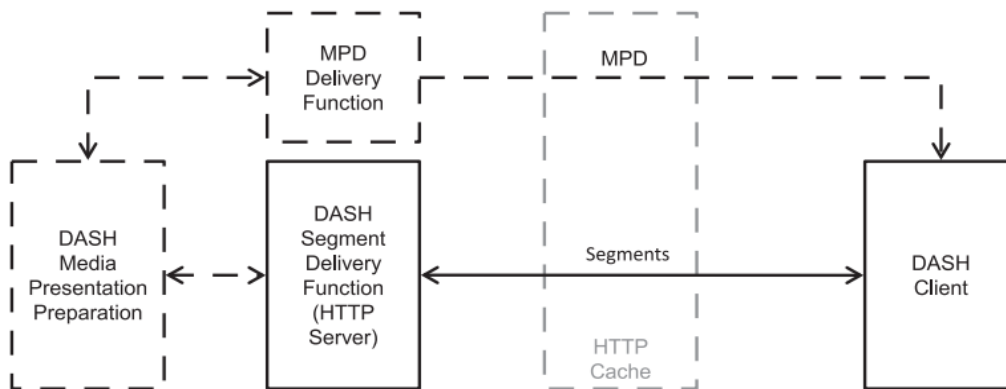


Figure 1 — Example system for DASH formats

Although the formats are initially designed to be used in the above deployment scenario, their application is obviously not restricted to this scenario. The particular aspect on "HTTP" in DASH is the usage of HTTP-URLs in the MPD for the purpose to refer to Segments. The usage of HTTP-URLs enables unique location information and it provides well-defined methods to access the resources, in particular HTTP GET and HTTP partial GET.

ISO/IEC 23009-1:2019.

100. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes a processing unit for accepting a request by a client computer for on-line delivery of the object movie and for determining one or more data blocks to transmit based on a bandwidth associated with the client computer.

4.2 DASH Client model

The design of the formats defined in this document is based on the informative client model as shown in [Figure 2](#). The figure illustrates the logical components of a conceptual DASH Client model and the relation to other components in a media streaming application. In this figure, the DASH access engine receives the Media Presentation Description (MPD), constructs and issues requests and receives Segments or parts of Segments. The DASH Client may use metadata provided in the MPD for the selection of media components by communication with the media streaming application. Such metadata may for example include codec capability information, language codes, accessibility information and other information for the selection of media components. In the context of this document, the output of the DASH access engine consists of media in MPEG container formats (ISO/IEC 14496-12 ISO base media file format or ISO/IEC 13818-1 MPEG-2 Transport Stream), or parts thereof, together with timing information that maps the internal timing of the continuous media to the timeline of the Media Presentation. In [Annex F](#), guidance on enabling the use of this document with other container formats is provided. In addition, the DASH access client may also receive and extract Events that are related to the media time. The events may be processed in the DASH Client or may be forwarded to an event processing application in the execution environment of the DASH Client.

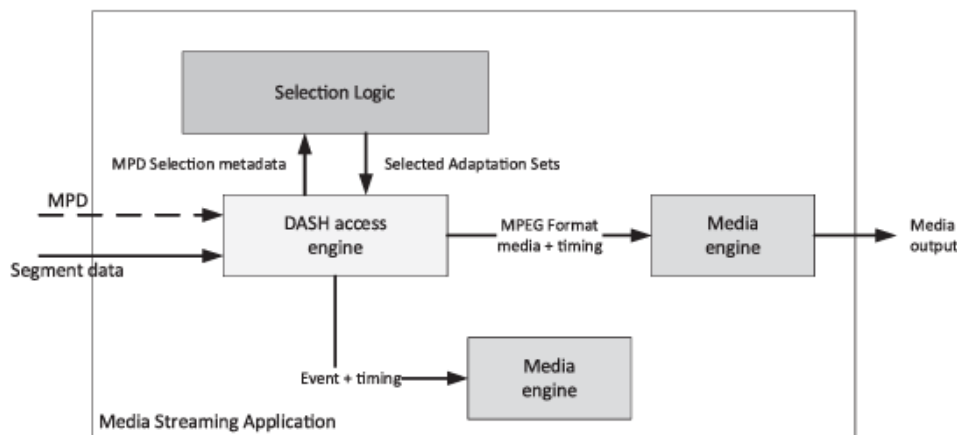


Figure 2 — DASH Client model

ISO/IEC 23009-1:2019.

101. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes a transmitter for delivering the determined data blocks to the client computer.

Figure 1 shows a possible deployment architecture in which the formats defined in this document may be used. Boxes with solid lines indicate devices that are mentioned in this document as they host or process the formats defined in this document whereas dashed boxes are conceptual or transparent. This document deals with the definition of formats that are accessible on the interface to the DASH Client, indicated by the solid lines. Any other formats or interfaces are outside the scope of this document. In the considered deployment scenario, it is assumed that the DASH Client has access to an MPD. The MPD provides sufficient information for the DASH Client to provide a streaming service to the user by requesting Segments from an HTTP server and demultiplexing, decoding and rendering the included media streams.

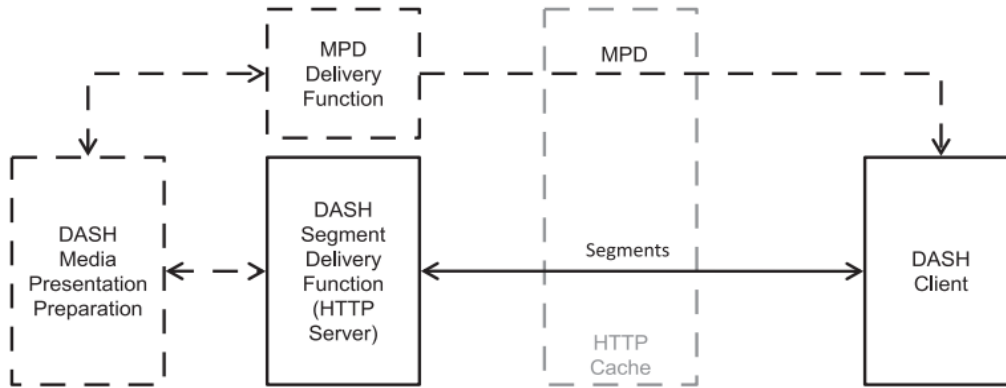


Figure 1 — Example system for DASH formats

Although the formats are initially designed to be used in the above deployment scenario, their application is obviously not restricted to this scenario. The particular aspect on "HTTP" in DASH is the usage of HTTP-URLs in the MPD for the purpose to refer to Segments. The usage of HTTP-URLs enables unique location information and it provides well-defined methods to access the resources, in particular HTTP GET and HTTP partial GET.

ISO/IEC 23009-1:2019.

102. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes a decoder for decompressing the data blocks back into object movie data at the client computer.

4.2 DASH Client model

The design of the formats defined in this document is based on the informative client model as shown in Figure 2. The figure illustrates the logical components of a conceptual DASH Client model and the relation to other components in a media streaming application. In this figure, the DASH access engine receives the Media Presentation Description (MPD), constructs and issues requests and receives Segments or parts of Segments. The DASH Client may use metadata provided in the MPD for the selection of media components by communication with the media streaming application. Such metadata may for example include codec capability information, language codes, accessibility information and other information for the selection of media components. In the context of this document, the output of the DASH access engine consists of media in MPEG container formats (ISO/IEC 14496-12 ISO base media file format or ISO/IEC 13818-1 MPEG-2 Transport Stream), or parts thereof, together with timing information that maps the internal timing of the continuous media to the timeline of the Media Presentation. In Annex F, guidance on enabling the use of this document with other container formats is provided. In addition, the DASH access client may also receive and extract Events that are related to the media time. The events may be processed in the DASH Client or may be forwarded to an event processing application in the execution environment of the DASH Client.

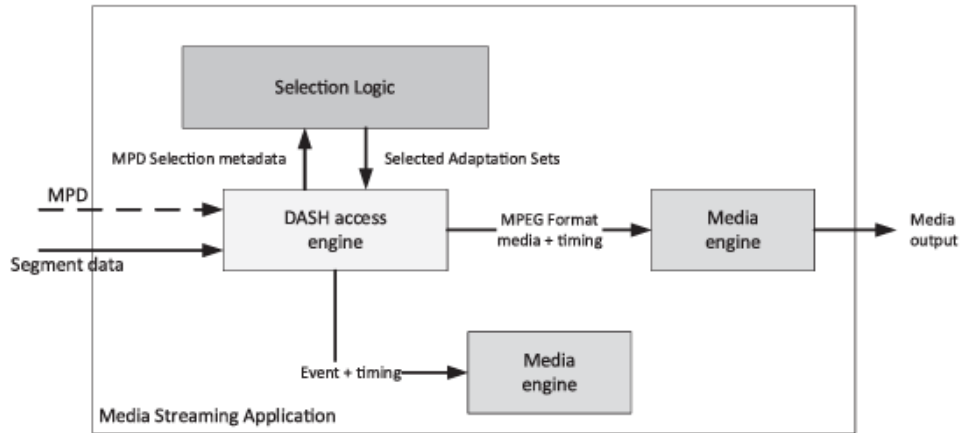


Figure 2 — DASH Client model

ISO/IEC 23009-1:2019.

103. As in claim 9 of the '714 Patent, the Accused Product, on information and belief, includes an accumulator for ordering the data blocks at the client computer to reconstruct the original digital object movie.

Scope of MPEG-DASH

Figure 2 illustrates a simple streaming scenario between an HTTP server and a DASH client. In this figure, the multimedia content is captured and stored on an HTTP server and is delivered using HTTP. The content exists on the server in two parts: 1) Media Presentation Description (MPD) which describes a manifest of the available content, its various alternatives, their URL addresses and other characteristics, and 2) Segments which contain the actual multimedia bitstreams in form of chunks, in single or multiple files.

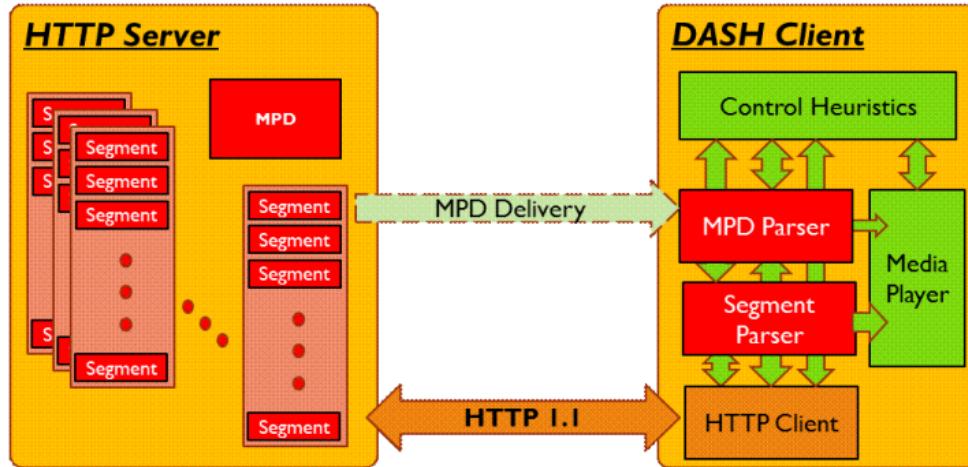


Figure 2. Scope of the MPEG-DASH Standard. The formats and the functionalities of the red blocks are defined by the specification. The clients control heuristics and media players are not within the scope of the standard.

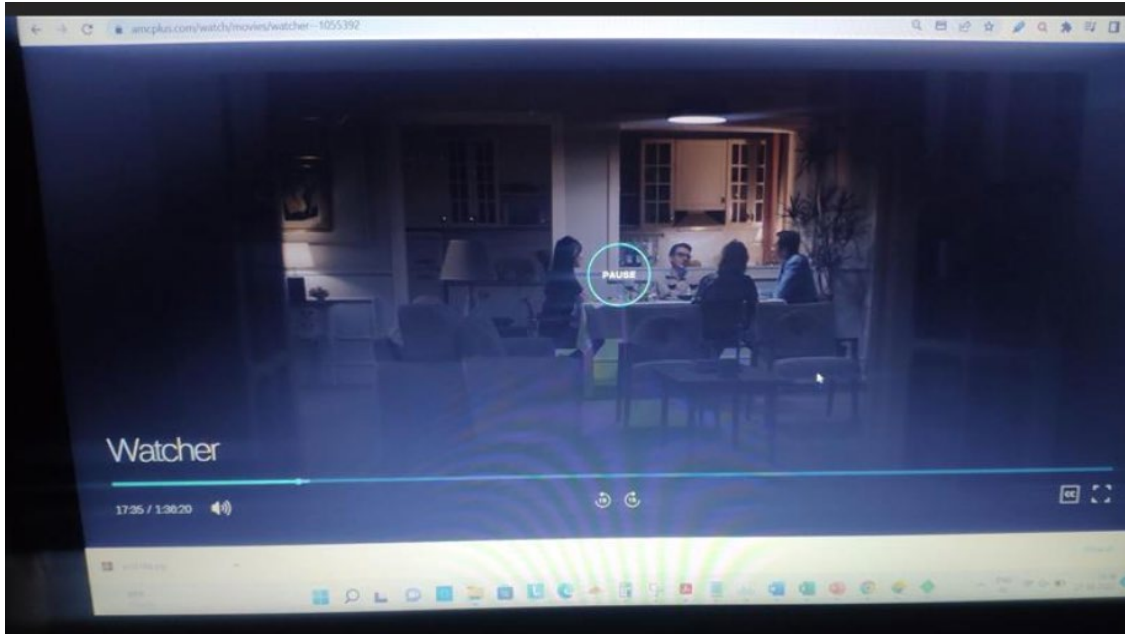
In order to play the content, the DASH client first obtains the MPD. The MPD can be delivered using HTTP, email, thumb drive, broadcast or other transports. By parsing the MPD, the DASH client learns about the timing of the program, the availability of media content, the media types, resolutions, minimum and maximum bandwidths and the existence of various encoded alternatives of multimedia components, the accessibility features and the required digital right management (DRM), the location of each media component on the network and other characteristic of the content. Using this information, the DASH client selects the appropriate encoded alternative and starts streaming of the content by fetching the segments using HTTP GET requests.

After appropriate buffering to allow for network throughput variations, the client continues fetching the subsequent segments and also monitors the bandwidth fluctuations of the network. Depending on its measurements, the client decides how to adapt to the available bandwidth by fetching segments of different alternatives (with lower or higher bitrate) to maintain an adequate buffer.

The MPEG-DASH specification only defines the MPD and the segment formats. The delivery of the MPD and the media encoding formats containing the segments as well as the client behavior for fetching, adaptation heuristics and playing the content are outside of MPEG-DASH's scope.

https://www.bogotobogo.com/VideoStreaming/images/mpeg_dash/DASH-IEEE-multimedia-preprint.pdf (last visited 9/21/2022).

104. As in claim 9 of the '714 Patent, the Accused Product includes a player on the client computer for playing the reconstructed digital object movie.



105. Defendant makes, uses, sells, and/or offers to sell the Accused Product which practices at least claim 9 of the '714 Patent.

106. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '714 Patent, including through its own use, testing, and sale of the Accused Products.

107. Defendant has had knowledge of infringement of the '714 Patent at least as of the service of the present Complaint.

108. Defendant has directly infringed at least one claim of the '714 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '714 Patent, DMS has been damaged.

109. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '714 Patent, pursuant to 35 U.S.C. § 271.

110. Defendant has committed these acts of infringement without license or authorization.

111. As a result of Defendant's infringement of the '714 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

112. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 8,122,004

113. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

114. Defendant has directly infringed at least claim 1 of the '004 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

115. The Accused Product meets all the limitations of at least claim 1 of the '004 Patent. For example, claim 1 of the '004 Patent recites:

A computer-implemented method implemented by at least one device of a content delivery system, the method comprising:

processing requests for media content from network devices to determine whether the network devices are supported by the content delivery system; and for at least one network device that is supported:

configuring a content package for media content that is requested by the network device to include code specific to a browser of the network device identified based upon one or more attributes of the network device;

causing communication of the content package to the network device; and

wherein the one or more attributes include one or more of basic operating characteristics of the at least one network device, a language attribute, a bandwidth attribute, a firewall attribute, or a permissions attribute.

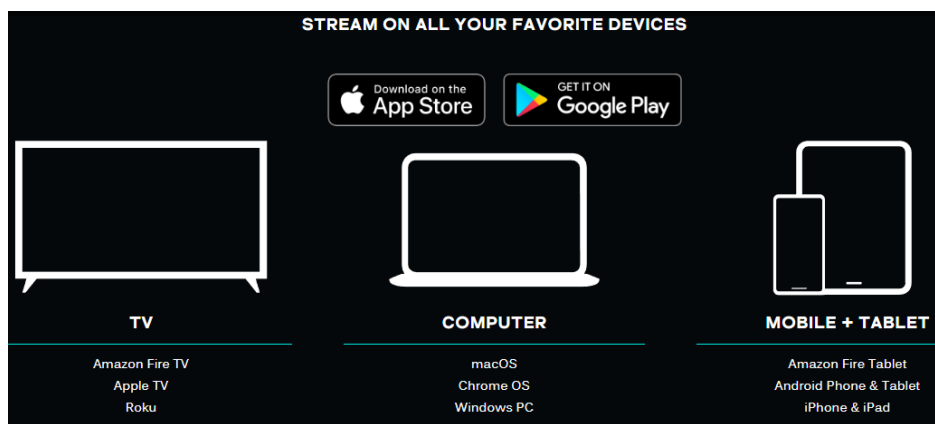
116. As in claim 1 of the '004 Patent, the Accused Product provides a content (*e.g.*, video content) delivery system.

WHAT IS AMC+?

AMC+ is a new premium streaming bundle that includes the the best of AMC, BBC America, IFC, and Sundance TV - with full access to Shudder, Sundance Now, and IFC Films Unlimited. Thousands of hours of incredible content, on demand, all in one place, with new shows and movies added every week.

<https://www.amcplus.com/> (last visited 9/15/2022).

117. As in claim 1 of the '004 Patent, the Accused Product processes requests for media content from network devices (*e.g.*, computers) to determine whether the network devices are supported by the content delivery system (*e.g.*, AMC+). For example, the Accused Product provides functionality to allow the streaming of media content to the browser of certain computer operating systems.



<https://www.amcplus.com/> (last visited 9/20/2022).

118. As in claim 1 of the '004 Patent, the Accused Product configures a content package for media content (*e.g.*, video content) that is requested by the network device (*e.g.*, a computer) to include code specific to a browser of the network device identified based upon one or more attributes of the network device. For example, the Accused Product provides the media content to the browser based on certain specific attributes, such as language and browser type.

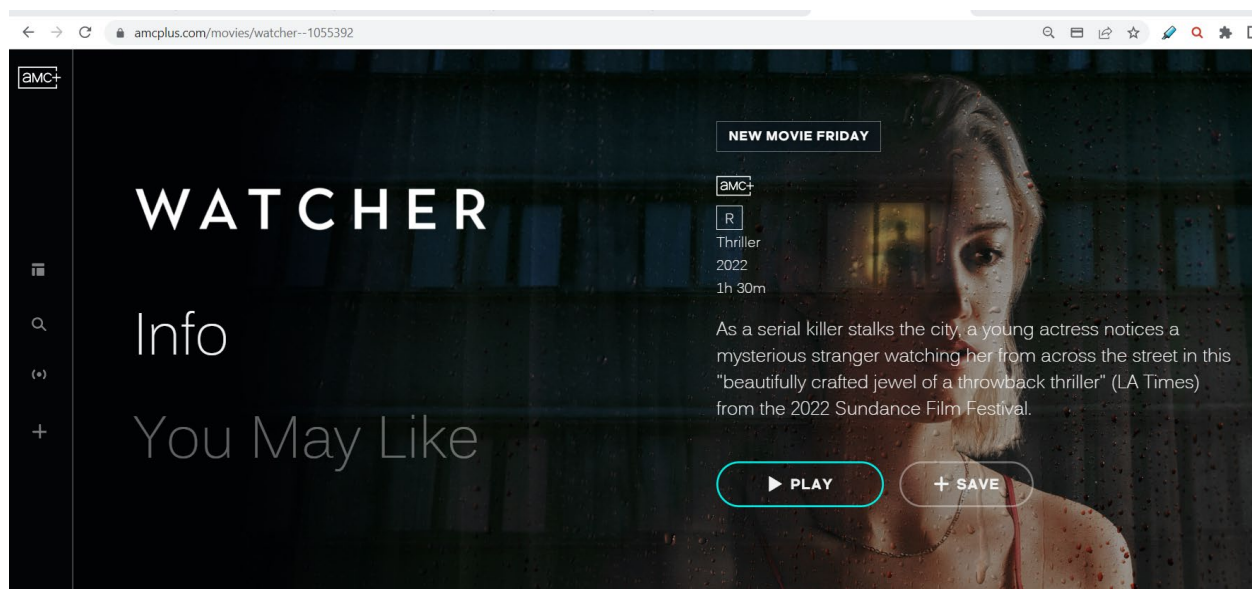
Analytics On Our Services

On our websites we use Google Analytics, and other similar services, to collect statistical information about how our websites are used. They use information such as your IP address, browser type and unique identifiers stored in cookies on your devices to record how you interact with our website.

These analytical services help us to know how many users we have, which parts of our sites are most popular, what browsers and devices are used (so we can maximize compatibility), the country or region where our users are located, and the demographics and interests of our users. This enables us to better understand who is using our site and to ensure we are reaching our target demographic, and to improve and tailor our services accordingly.

<https://www.amcnetworks.com/cookies/> (last visited 9/20/2022).

119. As in claim 1 of the '004 Patent, the Accused Product causes communication of the content package (e.g., video content) to the network device (e.g., a computer). For example, AMC+ streams video content to the browser of a computer.



<https://www.amcplus.com/watch/movies/watcher--1055392> (last visited 9/20/2022).

120. As in claim 1 of the '004 Patent, in the Accused Product, the one or more attributes include one or more of basic operating characteristics of the at least one network device, a language attribute, a bandwidth attribute, a firewall attribute, or a permissions attribute. For example, the Accused Product provides the media content to the browser based on certain specific attributes, such as language.

Analytics On Our Services

On our websites we use Google Analytics, and other similar services, to collect statistical information about how our websites are used. They use information such as your IP address, browser type and unique identifiers stored in cookies on your devices to record how you interact with our website.

These analytical services help us to know how many users we have, which parts of our sites are most popular, what browsers and devices are used (so we can maximize compatibility), the country or region where our users are located, and the demographics and interests of our users. This enables us to better understand who is using our site and to ensure we are reaching our target demographic, and to improve and tailor our services accordingly.

<https://www.amcnetworks.com/cookies/> (last visited 9/20/2022).

121. Defendant makes, uses, sells, and/or offers to sell the Accused Products which practices at least claim 1 of the '004 Patent.

122. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '004 Patent, including through its own use, testing, and sell of the Accused Products.

123. Defendant has had knowledge of infringement of the '004 Patent at least as of the service of the present Complaint.

124. Defendant has directly infringed at least one claim of the '004 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '004 Patent, DMS has been damaged.

125. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '004 Patent, pursuant to 35 U.S.C. § 271.

126. Defendant has committed these acts of infringement without license or authorization.

127. As a result of Defendant's infringement of the '004 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

128. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 8,046,672

129. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

130. Defendant has directly infringed at least claim 1 of the '672 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

131. Defendant has directly infringed at least claim 1 of the '672 Patent by performing all the limitation of that claim. For example, claim 1 of the '672 Patent recites:

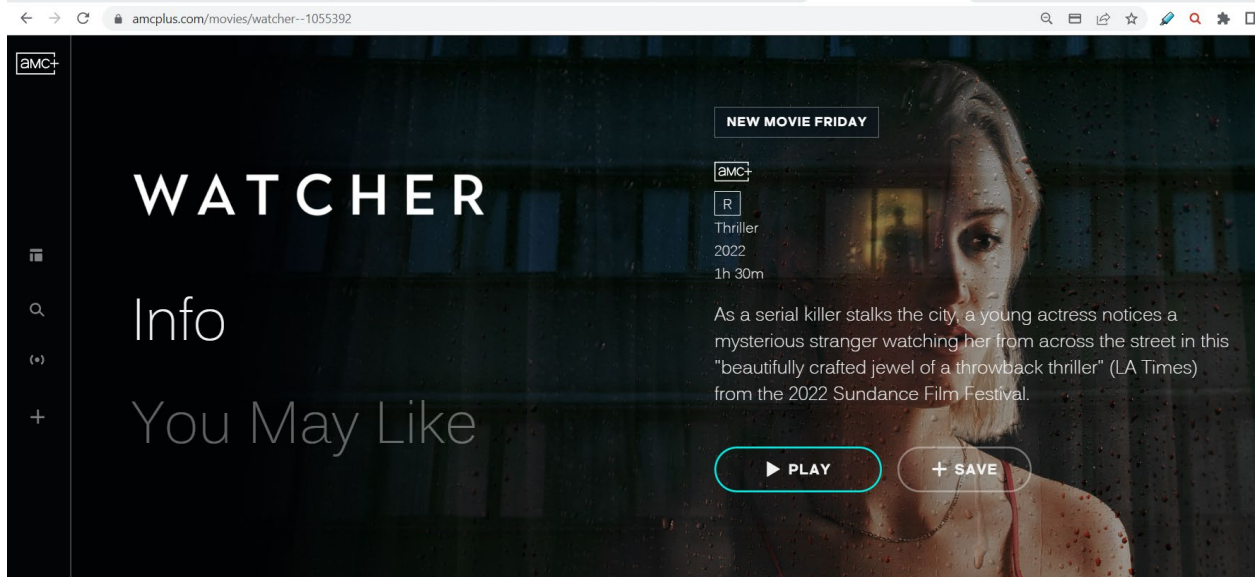
A method comprising:

receiving an indication over a network, in response to a request for access to a rich media presentation by an internet browser on a network device, that the internet browser on the network device has requested access to the rich media presentation;

in response to the receiving an indication, detecting one or more attributes of one or both of rich media capabilities associated with the internet browser or rich media capabilities associated with the network device; and

selecting a rich media presentation to be sent to the internet browser from among a plurality of rich media presentations based on the one or more attributes that are detected, wherein a selected rich media presentation includes a media package selected based on the one or more attributes that are detected and a virtual player configured to play the media package on the network device.

132. As in claim 1 of the '672 Patent, the Accused Product receives an indication over a network, in response to a request for access to a rich media presentation (*e.g.*, a video) by an internet browser on a network device (*e.g.*, a computer), that the internet browser on the network device has requested access to the rich media presentation.



<https://www.amcplus.com/watch/movies/watcher--1055392> (last visited 9/20/2022).

133. As in claim 1 of the '672 Patent, in response to the receiving an indication, the Accused Product, on information and belief, detects one or more attributes of one or both of rich media capabilities associated with the internet browser or rich media capabilities associated with the network device. For example, the Accused Product detects attributes of the computer, *e.g.*, browser and language.

Analytics On Our Services

On our websites we use Google Analytics, and other similar services, to collect statistical information about how our websites are used. They use information such as your IP address, browser type and unique identifiers stored in cookies on your devices to record how you interact with our website.

These analytical services help us to know how many users we have, which parts of our sites are most popular, what browsers and devices are used (so we can maximize compatibility), the country or region where our users are located, and the demographics and interests of our users. This enables us to better understand who is using our site and to ensure we are reaching our target demographic, and to improve and tailor our services accordingly.

<https://www.amcnetworks.com/cookies/> (last visited 9/20/2022).

134. As in claim 1 of the '672 Patent, the Accused Product, on information and belief, selects a rich media presentation to be sent to the internet browser from among a plurality of rich media presentations based on the one or more attributes that are detected, wherein a selected rich

media presentation includes a media package selected based on the one or more attributes that are detected and a virtual player configured to play the media package on the network device. For example, the Accused Product sends video to the browser that is selected based on detected attributes.

Analytics On Our Services

On our websites we use Google Analytics, and other similar services, to collect statistical information about how our websites are used. They use information such as your IP address, browser type and unique identifiers stored in cookies on your devices to record how you interact with our website.

These analytical services help us to know how many users we have, which parts of our sites are most popular, what browsers and devices are used (so we can maximize compatibility), the country or region where our users are located, and the demographics and interests of our users. This enables us to better understand who is using our site and to ensure we are reaching our target demographic, and to improve and tailor our services accordingly.

<https://www.amcnetworks.com/cookies/> (last visited 9/20/2022).

135. Defendant makes, uses, sells, and/or offers to sell the Accused Products which practices at least claim 1 of the '672 Patent.

136. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '672 Patent, including through its own use, testing, and sell of the Accused Products.

137. Defendant has had knowledge of infringement of the '672 Patent at least as of the service of the present Complaint.

138. Defendant has directly infringed and continues to infringe at least one claim of the '672 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '672 Patent, DMS has been damaged.

139. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '672 Patent, pursuant to 35 U.S.C. § 271.

140. Defendant has committed these acts of infringement without license or authorization.

141. As a result of Defendant's infringement of the '672 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

142. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 8,437,389

143. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

144. Defendant has directly infringed at least claim 1 of the '389 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

145. Defendant has directly infringed at least claim 1 of the '389 Patent by performing all the limitation of that claim. For example, claim 1 of the '389 Patent recites:

A method, comprising:

providing a plurality of video blocks for at least one of a plurality of bitstreams, each video block including a plurality of video segments and each video segment including a plurality of frames;

determining a bit budget during an inspection period for the at least one of the plurality of bitstreams;

parsing a header included in a video block corresponding to the at least one of the plurality of bitstreams to determine a plurality of bit rates used to encode a corresponding plurality of video segments included in the video block;

selecting a video segment from the plurality of video segments included in the video block after parsing the header based at least in part on selecting a bit rate from the plurality of bit rates corresponding to the video segment that most substantially meets the bit budget; and

providing the video segment selected from the plurality of video segments included in the video block to an output buffer;

wherein each of the plurality of video segments included in the video block is independently decodable;

wherein each video segment included in the video block includes a same portion of content as other plurality of video segments in the video block; and

wherein each of the video segments comprises a bit rate different than a bit rate used to encode other of the plurality of video segments.

146. As in claim 1 of the '389 Patent, the Accused Product, on information and belief, provides a plurality of video blocks for at least one of a plurality of bitstreams, each video block including a plurality of video segments and each video segment including a plurality of frames. For example, the Accused Product implements MPEG-DASH.

#	Result	Protocol	Host	URL
112	200	HTTPS	cdn-gl.imrworldwi...	/conf/T2FD817A4-40CC-4471-BAF2-C4F4E1EF516B.js
113	200	HTTPS	ssaimanifest.pro...	/us-east-1/playback/once/v1/dash/live-timeline/bccenc/6...
114	200	HTTP	Tunnel to	edges-acc-api.brightcove.com:443

```

Headers | TextView | SyntaxView | WebForms | HexView | Auth | Cookies | Raw | JSON | XML
GET https://ssaimanifest.prod.bo1tdns.net/us-east-1/playback/once/v1/dash/live-
timeline/bccenc/6245817279001/74263065-1285-4d00-842d-73a66554716a/d77bd315-
cbc9-4560-9439-4e7ec29ba8e1/9e0ccb8b-6dcc-4b5f-a4d5-f37d9914e231/content.mpd?
bc_token=N1MwOwZHN2JfMjZmZi40ThWzMOOTJiMDQ5OTVkJzQOMTMwOwEzNzM4YmIzWVVKODF1ZmZlNWUzZmRizjUYyMi3NjFhY2ViNQ%3D%
3D&rule=discos-enabled HTTP/1.1
Host: ssaimanifest.prod.bo1tdns.net
Connection: keep-alive
sec-ch-ua: "Chromium";v="104", " Not A;Brand";v="99", "Google Chrome";v="104"
sec-ch-ua-mobile: ?0
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/104.0.0.0
Safari/537.36
sec-ch-ua-platform: "Windows"
Accept: */*
Origin: https://www.amcplus.com
Sec-Fetch-Site: cross-site
Sec-Fetch-Mode: cors
Sec-Fetch-Dest: empty
Referer: https://www.amcplus.com/
Accept-Encoding: gzip, deflate, br
Accept-Language: en-US,en;q=0.9
    
```

Scope of MPEG-DASH

Figure 2 illustrates a simple streaming scenario between an HTTP server and a DASH client. In this figure, the multimedia content is captured and stored on an HTTP server and is delivered using HTTP. The content exists on the server in two parts: 1) Media Presentation Description (MPD) which describes a manifest of the available content, its various alternatives, their URL addresses and other characteristics, and 2) Segments which contain the actual multimedia bitstreams in form of chunks, in single or multiple files.

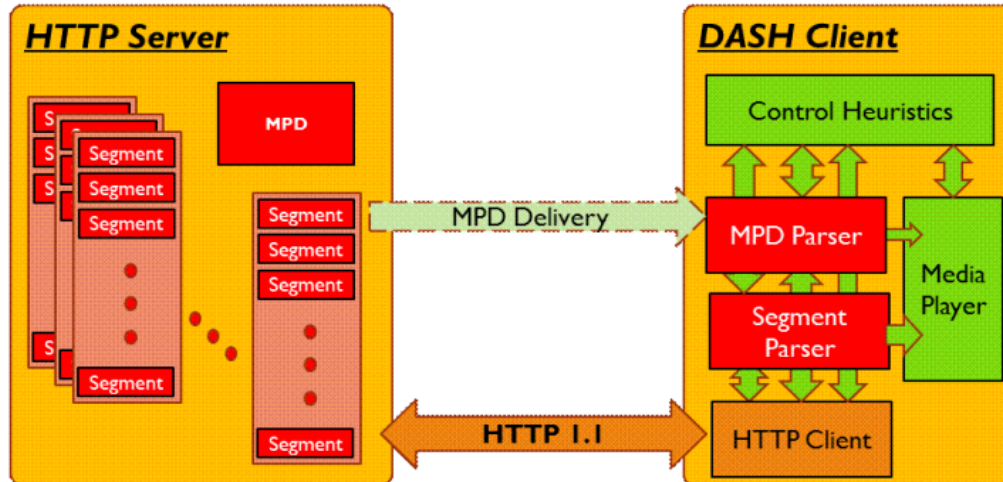


Figure 2. Scope of the MPEG-DASH Standard. The formats and the functionalities of the red blocks are defined by the specification. The clients control heuristics and media players are not within the scope of the standard.

In order to play the content, the DASH client first obtains the MPD. The MPD can be delivered using HTTP, email, thumb drive, broadcast or other transports. By parsing the MPD, the DASH client learns about the timing of the program, the availability of media content, the media types, resolutions, minimum and maximum bandwidths and the existence of various encoded alternatives of multimedia components, the accessibility features and the required digital right management (DRM), the location of each media component on the network and other characteristic of the content. Using this information, the DASH client selects the appropriate encoded alternative and starts streaming of the content by fetching the segments using HTTP GET requests.

After appropriate buffering to allow for network throughput variations, the client continues fetching the subsequent segments and also monitors the bandwidth fluctuations of the network. Depending on its measurements, the client decides how to adapt to the available bandwidth by fetching segments of different alternatives (with lower or higher bitrate) to maintain an adequate buffer.

The MPEG-DASH specification only defines the MPD and the segment formats. The delivery of the MPD and the media encoding formats containing the segments as well as the client behavior for fetching, adaptation heuristics and playing the content are outside of MPEG-DASH's scope.

https://www.bogotobogo.com/VideoStreaming/images/mpeg_dash/DASH-IEEE-multimedia-preprint.pdf (last visited 9/21/2022).

147. As in claim 1 of the '389 Patent the Accused Product, on information and belief, determines a bit budget during an inspection period for the at least one of the plurality of bitstreams. For example, on information and belief, the Accused Product uses CMAF to implement MPEG-DASH.

12. The average and maximum bitrate of each track SHOULD be signaled in the "btrt" box in the sample entry of the CMAF header. These can be used to signal the bitrate later on, such as in the manifest.

<https://dashif-documents.azurewebsites.net/Ingest/master/DASH-IF-Ingest.pdf> (last visited 9/21/2022).

148. As in claim 1 of the '389 Patent, the Accused Product, on information and belief, parses a header included in a video block corresponding to the at least one of the plurality of bitstreams to determine a plurality of bit rates used to encode a corresponding plurality of video segments included in the video block.

12. The average and maximum bitrate of each track SHOULD be signaled in the "btrt" box in the sample entry of the CMAF header. These can be used to signal the bitrate later on, such as in the manifest.

<https://dashif-documents.azurewebsites.net/Ingest/master/DASH-IF-Ingest.pdf> (last visited 9/21/2022).

Scope of MPEG-DASH

Figure 2 illustrates a simple streaming scenario between an HTTP server and a DASH client. In this figure, the multimedia content is captured and stored on an HTTP server and is delivered using HTTP. The content exists on the server in two parts: 1) Media Presentation Description (MPD) which describes a manifest of the available content, its various alternatives, their URL addresses and other characteristics, and 2) Segments which contain the actual multimedia bitstreams in form of chunks, in single or multiple files.

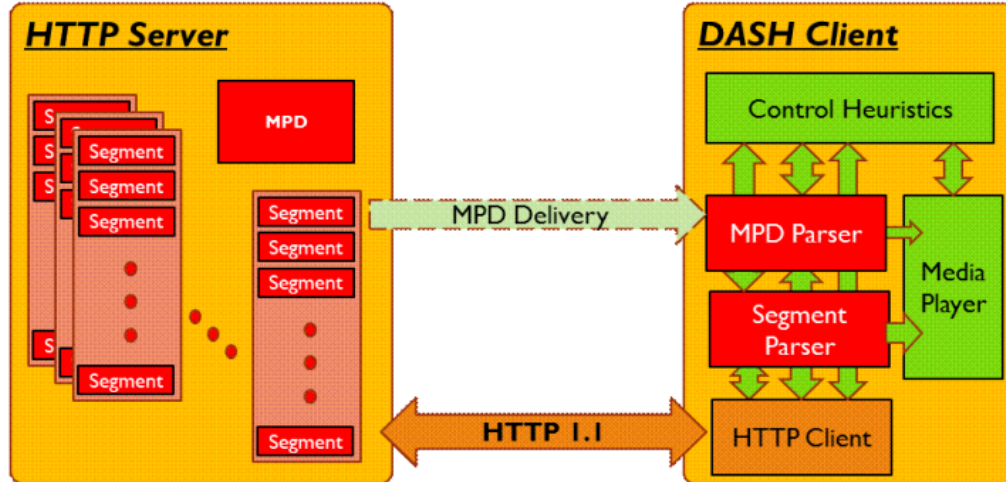


Figure 2. Scope of the MPEG-DASH Standard. The formats and the functionalities of the red blocks are defined by the specification. The clients control heuristics and media players are not within the scope of the standard.

In order to play the content, the DASH client first obtains the MPD. The MPD can be delivered using HTTP, email, thumb drive, broadcast or other transports. By parsing the MPD, the DASH client learns about the timing of the program, the availability of media content, the media types, resolutions, minimum and maximum bandwidths and the existence of various encoded alternatives of multimedia components, the accessibility features and the required digital right management (DRM), the location of each media component on the network and other characteristic of the content. Using this information, the DASH client selects the appropriate encoded alternative and starts streaming of the content by fetching the segments using HTTP GET requests.

After appropriate buffering to allow for network throughput variations, the client continues fetching the subsequent segments and also monitors the bandwidth fluctuations of the network. Depending on its measurements, the client decides how to adapt to the available bandwidth by fetching segments of different alternatives (with lower or higher bitrate) to maintain an adequate buffer.

The MPEG-DASH specification only defines the MPD and the segment formats. The delivery of the MPD and the media encoding formats containing the segments as well as the client behavior for fetching, adaptation heuristics and playing the content are outside of MPEG-DASH's scope.

https://www.bogotobogo.com/VideoStreaming/images/mpeg_dash/DASH-IEEE-multimedia-preprint.pdf (last visited 9/21/2022).

149. As in claim 1 of the '389 Patent, the Accused Product, on information and belief, selects a video segment from the plurality of video segments included in the video block after parsing the header based at least in part on selecting a bit rate from the plurality of bit rates corresponding to the video segment that most substantially meets the bit budget.

A Simple Case of Adaptive Streaming

Figure 1 illustrates a simple example of on-demand dynamic adaptive streaming. In this figure, the multimedia content consists of video and audio components. The video source is encoded at three different alternative bitrates: 5M, 2M and 500K bits/sec. Additionally, an I-frame only bitstream with low frame-rate is provided for streaming during the trick mode play. The accompanying audio content is available in two languages: Audio 1 is a dubbed English version of the audio track and is encoded in surround, AAC 128K and AAC 48K bits/sec alternatives, while Audio 2 is the original French version, encoded at AAC 128K and AAC 48K bits/sec alternatives only.

Assume that a device starts streaming the content by requesting segments of the video bitstream at the highest available quality (5M) and the English audio at 128K AAC since for instance the device does not support surround Audio (1). After streaming the 1st segments of video and audio, and monitoring the effective network bandwidth, the device realizes that the actual available bandwidth is lower than 5M bits/sec. So, at the next available switching point, it switches the video down to 2M bits/sec by streaming the next segments from the mid-quality track while it continues streaming of the 128K AAC English audio (2). The device continues to monitor the actual network bandwidth and realizes that the network bandwidth has further decreased to a value lower than 2M bits/sec. Therefore, in order to maintain continuous playback, the device further switches the streams down to 500K bits/sec video and 48K bits/sec audio (3). It continues playing the content at these rates until the network bandwidth increases and then it switches the video up to 2M (4). After a while, the user decides to pause and rewind. At this point, the device starts streaming the video from the trick mode track to play the video in the reverse order, while audio is muted (5). At the desired point, the user clicks to play the content with the original French audio. At this point, the device resumes streaming the video from the highest quality (5M) and audio from 128K French audio (6).|

https://mpeg.chiariglione.org/sites/default/files/files/standards/docs/w13533_0.zip (last visited 9/21/2022).

150. As in claim 1 of the '389 Patent, the Accused Product, on information and belief, provides the video segment selected from the plurality of video segments included in the video block to an output buffer.

Figure 1 shows a possible deployment architecture in which the formats defined in this document may be used. Boxes with solid lines indicate devices that are mentioned in this document as they host or process the formats defined in this document whereas dashed boxes are conceptual or transparent. This document deals with the definition of formats that are accessible on the interface to the DASH Client, indicated by the solid lines. Any other formats or interfaces are outside the scope of this document. In the considered deployment scenario, it is assumed that the DASH Client has access to an MPD. The MPD provides sufficient information for the DASH Client to provide a streaming service to the user by requesting Segments from an HTTP server and demultiplexing, decoding and rendering the included media streams.

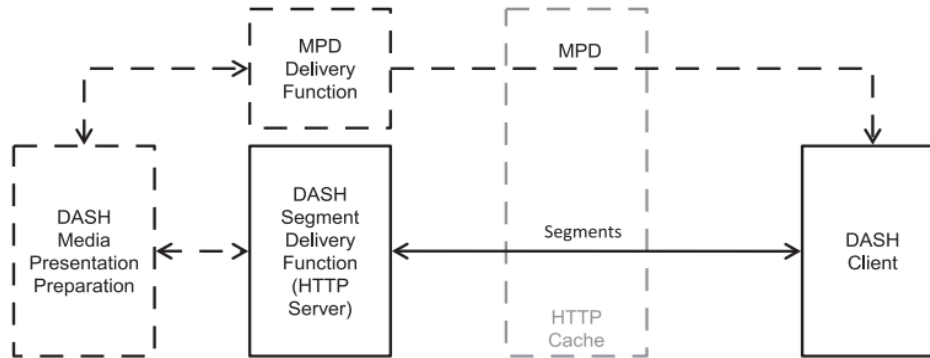


Figure 1 — Example system for DASH formats

Although the formats are initially designed to be used in the above deployment scenario, their application is obviously not restricted to this scenario. The particular aspect on "HTTP" in DASH is the usage of HTTP-URLs in the MPD for the purpose to refer to Segments. The usage of HTTP-URLs enables unique location information and it provides well-defined methods to access the resources, in particular HTTP GET and HTTP partial GET.

3.1.28

Media Segment

Segment (3.1.39) that complies with media format in use and enables playback when combined with zero or more preceding Segments and an *Initialization Segment* (3.1.19) (if any)

An Adaptation Set contains a set of **Representations** (see subclause 5.3.5). A Representation describes a *deliverable encoded version* of one or several media content components. A Representation includes one or more media streams (one for each media content component in the multiplex). Any single Representation within an Adaptation Set is sufficient to render the contained media content components. By collecting different Representations in *one* Adaptation Set, the Media Presentation author expresses that the Representations represent perceptually equivalent content. Typically, this means that clients may switch dynamically from Representation to Representation within an Adaptation Set in order to adapt to network conditions or other factors. Switching refers to the presentation of decoded data up to a certain time t , and presentation of decoded data of another Representation from time t onwards. If Representations are included in one Adaptation Set, and the client switches properly, the Media Presentation is expected to be perceived seamless across the switch. DASH Clients may ignore Representations containing unsupported codecs or rendering technologies, or that are otherwise unsuitable.

Within a Representation, the content may be divided in time into **Segments** (see subclause 5.3.9 and Clause 6) for proper accessibility and delivery. In order to access a Segment, a URL is provided for each Segment. Consequently, a Segment is the largest unit of data that can be retrieved with a single HTTP request. For segmented Representations, two types of Segments are differentiated: **Initialization Segments** contain static metadata for the Representation, **Media Segments** contain media samples and the advanced timeline. Representations may also be organized by a single self-initializing Segment which contains both initialization information as well as media data.

4.3 DASH data model overview

DASH is intended to support a media-streaming model for delivery of continuous media content in which control lies primarily with the client. Clients may request data using the HTTP protocol from standard web servers that have no DASH-specific capabilities. Consequently, this document focuses not on client or server procedures but on the data formats used to provide a DASH Media Presentation.

The collection of encoded and deliverable versions of continuous media content and the appropriate description of these form a Media Presentation. Media content is composed of a single or multiple contiguous media content **periods** in time. Content in different media content periods may be completely independent or certain periods of a Media Presentation may belong to the same Asset, for example a Media Presentation is a collection of main program composed of multiple periods, each assigned to the same Asset, and interleaved with inserted advertisement periods. Each media content period is composed of one or multiple **media content components**, for example audio components in various languages, different video components providing different views of the same program, subtitles in different languages, etc. Each media content component has an assigned **media content component type**, for example audio or video. The same asset over multiple periods may be identified by a DASH descriptor enabling DASH Clients to maintain the continuity across periods' boundaries. Furthermore, sub-assets composing the same asset may also be identified using a similar method. For instance, if an asset is composed of multiple video components, sub-assets enable selecting the previously selected video component after an ad insertion.

Each media content component may have several encoded versions, referred to as **media streams**. Each media stream inherits the properties of the media content, the media content period, the media content component from which it was encoded and, in addition, it gets assigned the properties of the encoding process such as sub-sampling, codec parameters, encoding bitrate, etc. This describing metadata is relevant for static and dynamic selection of media content components and media streams.

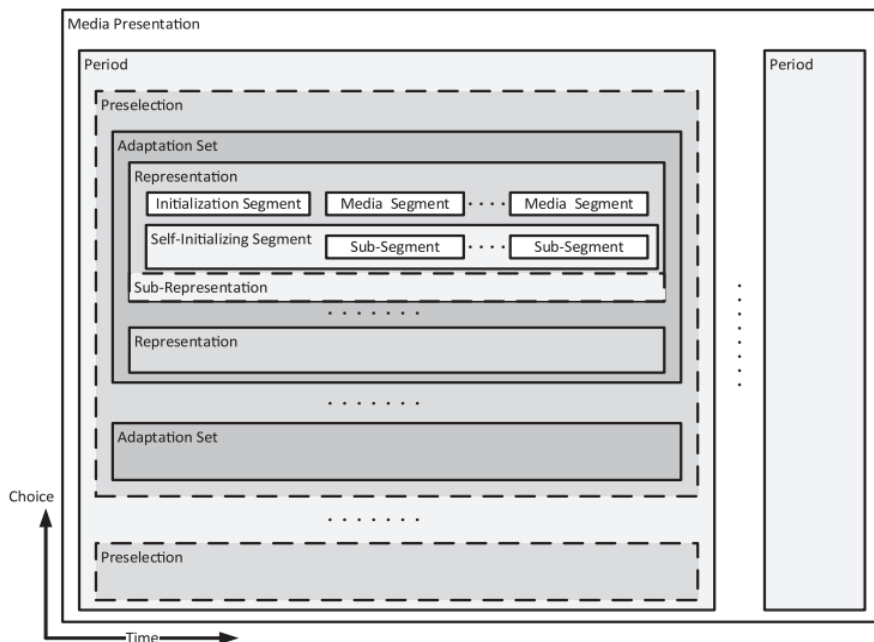


Figure 3 — DASH High-Level Data Model

DASH is based on a hierarchical data model aligned with the presentation in [Figure 3](#). In the horizontal domain, this shows the sequence in time of the Media Presentation, and in the vertical domain it shows the choices offered in a Media Presentation, to be selected by the DASH Client in a static and dynamic manner. A DASH **Media Presentation** is described by a Media Presentation Description document. This describes the sequence of **Periods** (see subclause [5.3.2](#)) in time that make up the Media Presentation. A Period typically represents a media content period during which a consistent set of encoded versions of the media content is available i.e. the set of available bitrates, languages, captions, subtitles etc. does not change during a Period.

Within a Period, material is arranged into **Adaptation Sets** (see subclause [5.3.3](#)). An Adaptation Set represents a set of interchangeable encoded versions of one or several media content components (see subclause [5.3.4](#)). For example, there may be one Adaptation Set for the main video component and a separate one for the main audio component. If there is other material available, for example captions or audio descriptions, then these may each have a separate Adaptation Set. Material may also be provided in multiplexed form, in which case interchangeable versions of the *multiplex* may be described as a single Adaptation Set, for example an Adaptation Set containing both the main audio and main video for a Period. Each of the multiplexed components may be described individually by a media content component description. In the third edition, the concept of **Preselections** (see subclause [5.3.11](#)) was added in order to enable the combination of different Adaptation Sets into a single decoding and user experience.

ISO/IEC 23009-1:2019.

151. As in claim 1 of the '389 Patent, in the Accused Product, on information and belief, each of the plurality of video segments included in the video block is independently decodable.

4.3 DASH data model overview

DASH is intended to support a media-streaming model for delivery of continuous media content in which control lies primarily with the client. Clients may request data using the HTTP protocol from standard web servers that have no DASH-specific capabilities. Consequently, this document focuses not on client or server procedures but on the data formats used to provide a DASH Media Presentation.

The collection of encoded and deliverable versions of continuous media content and the appropriate description of these form a Media Presentation. Media content is composed of a single or multiple contiguous media content **periods** in time. Content in different media content periods may be completely independent or certain periods of a Media Presentation may belong to the same Asset, for example a Media Presentation is a collection of main program composed of multiple periods, each assigned to the same Asset, and interleaved with inserted advertisement periods. Each media content period is composed of one or multiple **media content components**, for example audio components in various languages, different video components providing different views of the same program, subtitles in different languages, etc. Each media content component has an assigned **media content component type**, for example audio or video. The same asset over multiple periods may be identified by a DASH descriptor enabling DASH Clients to maintain the continuity across periods' boundaries. Furthermore, sub-assets composing the same asset may also be identified using a similar method. For instance, if an asset is composed of multiple video components, sub-assets enable selecting the previously selected video component after an ad insertion.

Each media content component may have several encoded versions, referred to as **media streams**. Each media stream inherits the properties of the media content, the media content period, the media content component from which it was encoded and, in addition, it gets assigned the properties of the encoding process such as sub-sampling, codec parameters, encoding bitrate, etc. This describing metadata is relevant for static and dynamic selection of media content components and media streams.

ISO/IEC 23009-1:2019.

152. As in claim 1 of the '389 Patent, in the Accused Product, on information and belief, each video segment included in the video block includes a same portion of content as other plurality of video segments in the video block.

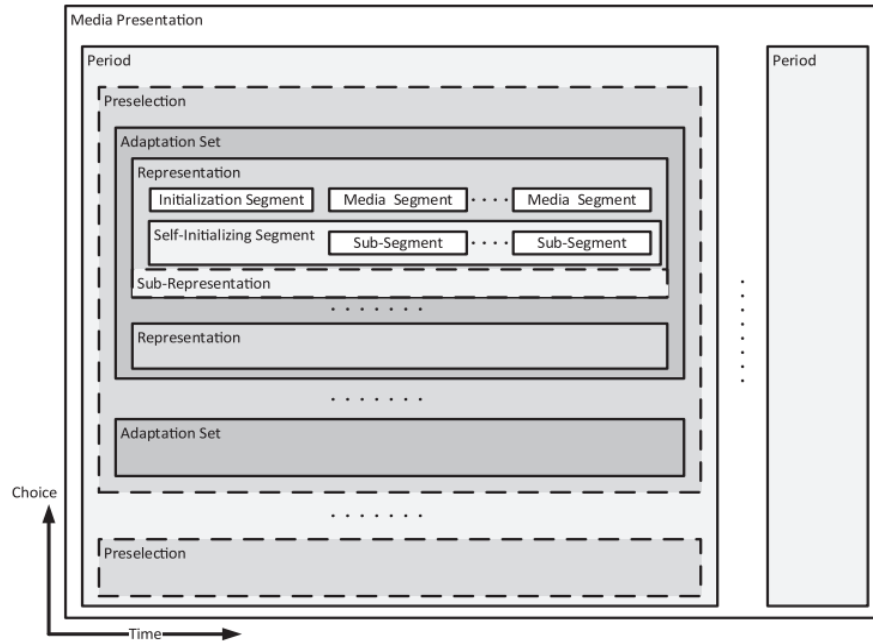


Figure 3 — DASH High-Level Data Model

DASH is based on a hierarchical data model aligned with the presentation in [Figure 3](#). In the horizontal domain, this shows the sequence in time of the Media Presentation, and in the horizontal domain it shows the choices offered in a Media Presentation, to be selected by the DASH Client in a static and dynamic manner. A DASH **Media Presentation** is described by a Media Presentation Description document. This describes the sequence of **Periods** (see subclause [5.3.2](#)) in time that make up the Media Presentation. A Period typically represents a media content period during which a consistent set of encoded versions of the media content is available i.e. the set of available bitrates, languages, captions, subtitles etc. does not change during a Period.

Within a Period, material is arranged into **Adaptation Sets** (see subclause [5.3.3](#)). An Adaptation Set represents a set of interchangeable encoded versions of one or several media content components (see subclause [5.3.4](#)). For example, there may be one Adaptation Set for the main video component and a separate one for the main audio component. If there is other material available, for example captions or audio descriptions, then these may each have a separate Adaptation Set. Material may also be provided in multiplexed form, in which case interchangeable versions of the *multiplex* may be described as a single Adaptation Set, for example an Adaptation Set containing both the main audio and main video for a Period. Each of the multiplexed components may be described individually by a media content component description. In the third edition, the concept of **Preselections** (see subclause [5.3.11](#)) was added in order to enable the combination of different Adaptation Sets into a single decoding and user experience.

ISO/IEC 23009-1:2019.

153. As in claim 1 of the '389 Patent, in the Accused Product, on information and belief, each of the video segments comprises a bit rate different than a bit rate used to encode other of the plurality of video segments.

An Adaptation Set contains a set of **Representations** (see subclause 5.3.5). A Representation describes a *deliverable encoded version* of one or several media content components. A Representation includes one or more media streams (one for each media content component in the multiplex). Any single Representation within an Adaptation Set is sufficient to render the contained media content components. By collecting different Representations in *one* Adaptation Set, the Media Presentation author expresses that the Representations represent perceptually equivalent content. Typically, this means that clients may switch dynamically from Representation to Representation within an Adaptation Set in order to adapt to network conditions or other factors. Switching refers to the presentation of decoded data up to a certain time *t*, and presentation of decoded data of another Representation from time *t* onwards. If Representations are included in one Adaptation Set, and the client switches properly, the Media Presentation is expected to be perceived seamless across the switch. DASH Clients may ignore Representations containing unsupported codecs or rendering technologies, or that are otherwise unsuitable.

Within a Representation, the content may be divided in time into **Segments** (see subclause 5.3.9 and Clause 6) for proper accessibility and delivery. In order to access a Segment, a URL is provided for each Segment. Consequently, a Segment is the largest unit of data that can be retrieved with a single HTTP request. For segmented Representations, two types of Segments are differentiated: **Initialization Segments** contain static metadata for the Representation, **Media Segments** contain media samples and the advanced timeline. Representations may also be organized by a single self-initializing Segment which contains both initialization information as well as media data.

ISO/IEC 23009-1:2019.

A Simple Case of Adaptive Streaming

Figure 1 illustrates a simple example of on-demand dynamic adaptive streaming. In this figure, the multimedia content consists of video and audio components. The video source is encoded at three different alternative bitrates: 5M, 2M and 500K bits/sec. Additionally, an I-frame only bitstream with low frame-rate is provided for streaming during the trick mode play. The accompanying audio content is available in two languages: Audio 1 is a dubbed English version of the audio track and is encoded in surround, AAC 128K and AAC 48K bits/sec alternatives, while Audio 2 is the original French version, encoded at AAC 128K and AAC 48K bits/sec alternatives only.

Assume that a device starts streaming the content by requesting segments of the video bitstream at the highest available quality (5M) and the English audio at 128K AAC since for instance the device does not support surround Audio (1). After streaming the 1st segments of video and audio, and monitoring the effective network bandwidth, the device realizes that the actual available bandwidth is lower than 5M bits/sec. So, at the next available switching point, it switches the video down to 2M bits/sec by streaming the next segments from the mid-quality track while it continues streaming of the 128K AAC English audio (2). The device continues to monitor the actual network bandwidth and realizes that the network bandwidth has further decreased to a value lower than 2M bits/sec. Therefore, in order to maintain continuous playback, the device further switches the streams down to 500K bits/sec video and 48K bits/sec audio (3). It continues playing the content at these rates until the network bandwidth increases and then it switches the video up to 2M (4). After a while, the user decides to pause and rewind. At this point, the device starts streaming the video from the trick mode track to play the video in the reverse order, while audio is muted (5). At the desired point, the user clicks to play the content with the original French audio. At this point, the device resumes streaming the video from the highest quality (5M) and audio from 128K French audio (6).|

https://mpeg.chiariglione.org/sites/default/files/files/standards/docs/w13533_0.zip (last visited 9/21/2022).

154. Defendant makes, uses, sells, and/or offers to sell the Accused Products which practices at least claim 1 of the '389 Patent.

155. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '389 Patent, including through its own use, testing, and sell of the Accused Products.

156. Defendant has had knowledge of infringement of the '389 Patent at least as of the service of the present Complaint.

157. Defendant has directly infringed and continues to infringe at least one claim of the '389 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '389 Patent, DMS has been damaged.

158. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '389 Patent, pursuant to 35 U.S.C. § 271.

159. Defendant has committed these acts of infringement without license or authorization.

160. As a result of Defendant's infringement of the '389 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

161. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

COUNT VII: INFRINGEMENT OF U.S. PATENT NO. 8,482,384

162. Plaintiff incorporates by reference and re-alleges the foregoing paragraphs of this Complaint as if fully set forth herein.

163. Defendant has directly infringed at least claim 1 of the '384 Patent in violation of 35 U.S.C. § 271 *et seq.*, by making, using, offering for sale, or selling in the United States, and/or importing into the United States without authority or license the Accused Product.

164. Defendant has directly infringed at least claim 1 of the '384 Patent by performing all the limitation of that claim. For example, claim 1 of the '384 Patent recites:

A method, comprising:

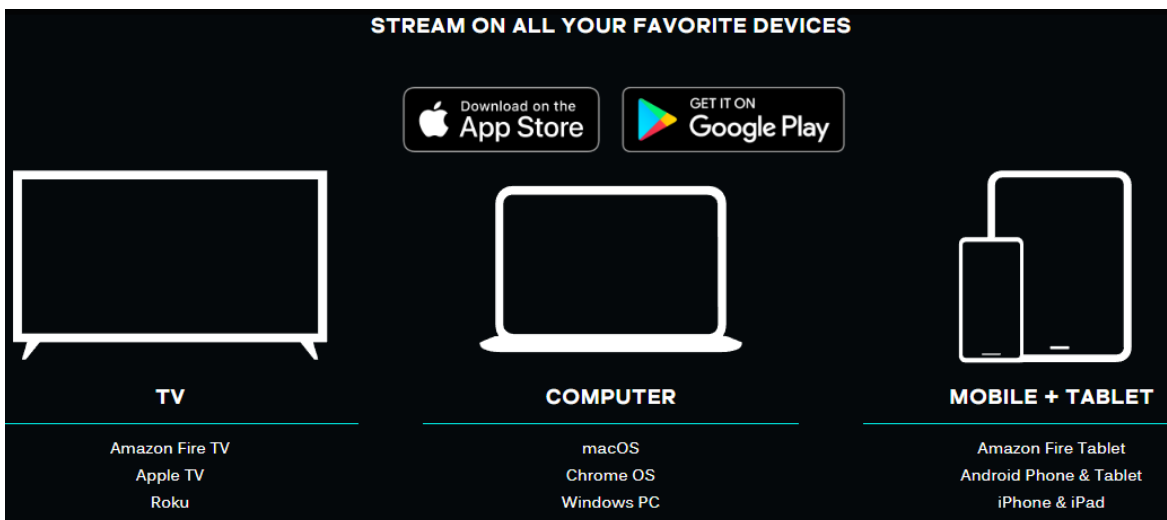
playing a signal representative of data at a first appliance, the first appliance located in a first location of a household;

pausing the playing of the signal at the first appliance;

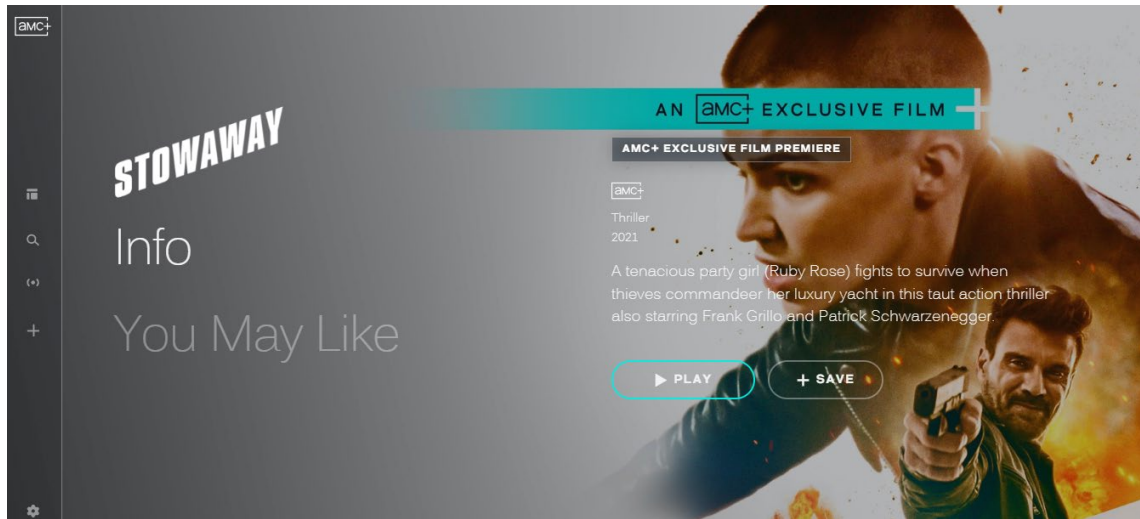
transmitting, to a second appliance, an indication of the point at which the playing was paused; and

resuming the playing of the signal at the second appliance, the second appliance located in a second location of the household.

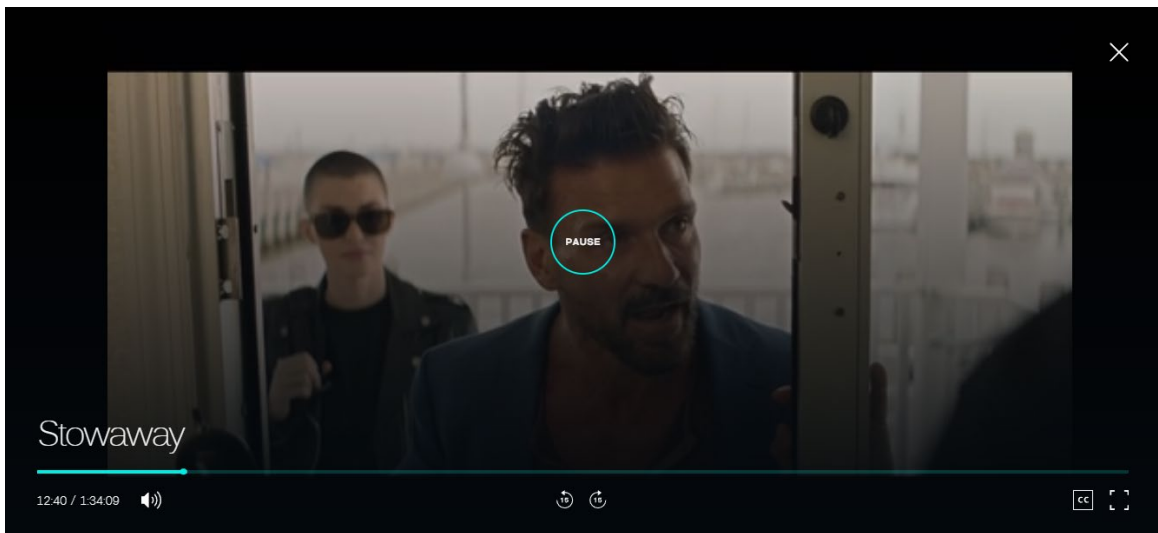
165. As in claim 1 of the '384 Patent, the Accused Product plays a signal representative of data at a first appliance, the first appliance located in a first location of a household. For example, the Accused Product can play video content on a user's computer.



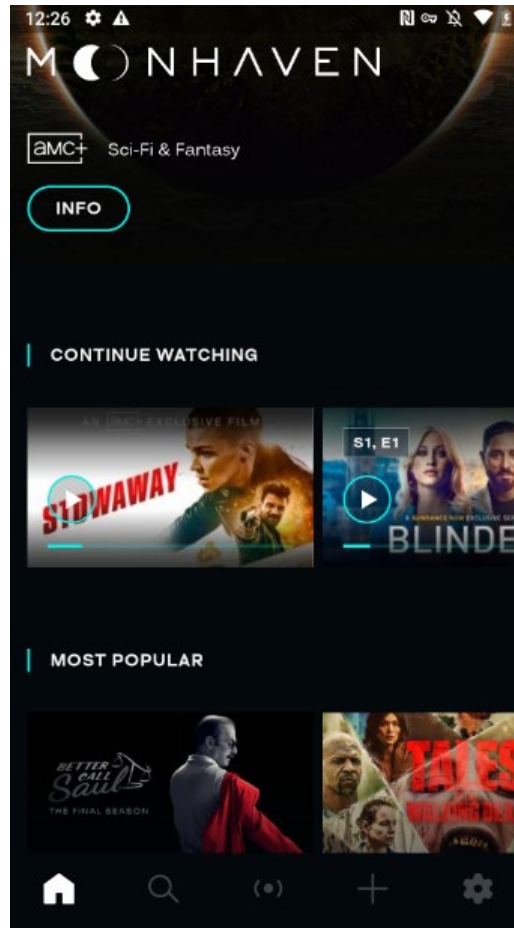
<https://www.amcplus.com/> (last visited 9/20/2022).



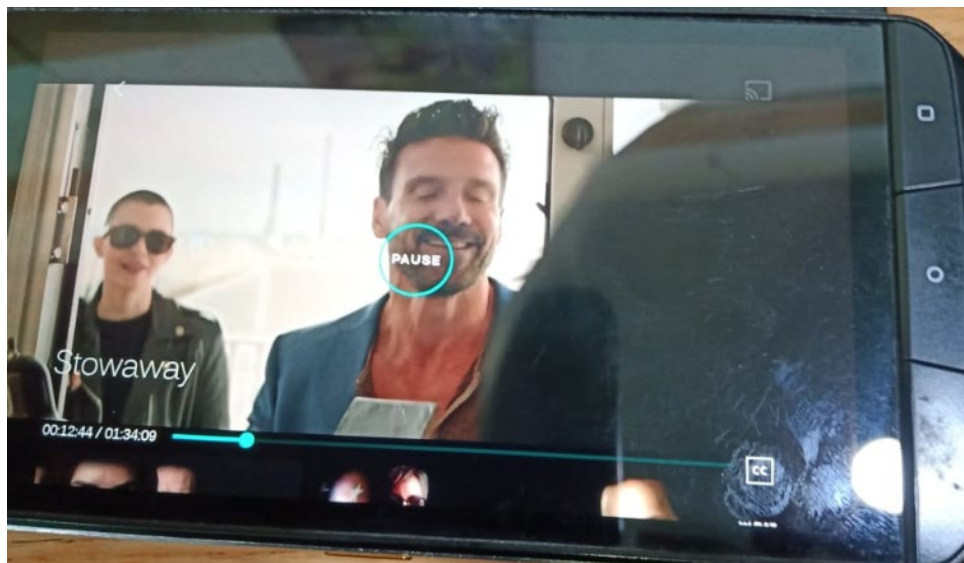
166. As in claim 1 of the '384 Patent the Accused Product pauses the playing of the signal at the first appliance. For example, the Accused Product can pause the playing of video content on a user's computer.



167. As in claim 1 of the '384 Patent, the Accused Product transmits, to a second appliance, an indication of the point at which the playing was paused. For example, the Accused Product transmits an indication of where video content was paused to another device, such as a phone.



168. As in claim 1 of the '384 Patent, the Accused Product resumes the playing of the signal at the second appliance, the second appliance located in a second location of the household. For example, the Accused Product can resume playing the video content on a user's mobile device.



169. Defendant makes, uses, sells, and/or offers to sell the Accused Products which practices at least claim 1 of the '384 Patent.

170. In violation of 35 U.S.C. § 271, Defendant has been directly infringing the '384 Patent, including through its own use, testing, and sell of the Accused Products.

171. Defendant has had knowledge of infringement of the '384 Patent at least as of the service of the present Complaint.

172. Defendant has directly infringed and continues to infringe at least one claim of the '384 Patent by making, using, offering for sale, and selling the Accused Product without authority in the United States. As a direct and proximate result of Defendant's direct infringement of the '384 Patent, DMS has been damaged.

173. By engaging in the conduct described herein, Defendant has injured DMS and is thus liable for infringement of the '384 Patent, pursuant to 35 U.S.C. § 271.

174. Defendant has committed these acts of infringement without license or authorization.

175. As a result of Defendant's infringement of the '384 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

176. Plaintiff reserves the right to modify its infringement theories as discovery progresses in this case; it shall not be estopped for infringement contention or claim construction purposes by the claim chart that it provides with this Complaint.

DEMAND FOR JURY TRIAL

177. DMS demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, DMS respectfully requests:

- a. That Judgment be entered that Defendant has infringed one or more claims of the '811 Patent;
- b. That Judgment be entered that Defendant has infringed one or more claims of the '922 Patent;
- c. That Judgment be entered that Defendant has infringed one or more claims of the '714 Patent;
- d. That Judgment be entered that Defendant has infringed one or more claims of the '672 Patent;
- e. That Judgment be entered that Defendant has infringed one or more claims of the '004 Patent;
- f. That Judgment be entered that Defendant has infringed one or more claims of the '389 Patent;

- g. That Judgment be entered that Defendant has infringed one or more claims of the '384 Patent;
- h. An award of damages pursuant to 35 U.S.C. §284, sufficient to compensate Plaintiff for the Defendant's past infringement and any continuing or future infringement;
- i. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. §284;
- j. That Defendant be directed to pay enhanced damages, including Plaintiff's attorneys' fees incurred in connection with this lawsuit pursuant to 35 U.S.C. §285; and
- k. That Plaintiff be granted such other and further relief as this Court may deem just and proper.

Dated: September 30, 2022

Respectfully submitted,

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