IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

EQUIL IP HOLDINGS LLC,	)	
	)	
Plaintiff,	)	C.A. No. _____
	)	
v.	)	**JURY TRIAL DEMANDED**
	)	
AKAMAI TECHNOLOGIES, INC.,	)	
	)	
Defendant.	)	

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Equil IP Holdings LLC ("Equil IP") for its Complaint for Patent Infringement against Akamai Technologies, Inc. ("Akamai") states the following:

NATURE OF THIS ACTION

1. This is a civil action for the infringement of the following United States patents (the "Asserted Patents") as described herein:

- U.S. Patent No. 8,495,242 ("Automated media delivery system"), issued on July 23, 2013 (the "'242 Patent"); and
- U.S. Patent No. 9,158,745 ("Optimization of media content using generated intermediate media content"), issued on October 13, 2015 (the "'745 Patent").

2. The Asserted Patents are members of a patent family that additionally includes U.S. Patent No. 6,792,575 ("Automated processing and delivery of media to web servers"), issued on September 14, 2004 (the "'575 Patent"); U.S. Patent No. 6,964,009 ("Automated media delivery system"), issued on November 8, 2005 (the "'009 Patent"); and U.S. Patent No. 8,381,110 ("Automated media delivery system"), issued on February 19, 2013 (the "'110 Patent") (collectively with the Asserted Patents, the "Equilibrium Patents"). The Equilibrium Patents disclose revolutionary innovations regarding how rich-media content such as images and

videos can be optimized and rapidly delivered to Internet-connected devices such as phones and computers.

PARTIES

3. Plaintiff Equil IP is a limited liability company duly organized and existing under the laws of Delaware having its principal place of business at 500 Tamal Plaza, Suite 528, Corte Madera, CA 94925. Equil IP is the owner by assignment of the Equilibrium Patents.

4. With respect to the Equilibrium Patents, Equil IP is the successor-in-interest to Automated Media Processing Solutions, Inc. d/b/a Equilibrium ("Equilibrium"), a corporation duly organized and existing under the laws of Delaware having its principal place of business at 500 Tamal Plaza, Suite 528, Corte Madera, CA 94925.

5. Equilibrium is an industry pioneer and leader in developing patented automated media processing solutions to help its customers manage, modify, and efficiently deploy media-rich content such as images, video, and sound optimized for delivery over the Internet and customized for use on Internet-connected end-user devices such as desktop and laptop computers and mobile phones.

6. On information and belief, Akamai is a corporation organized and existing under the laws of the State of Delaware, with its corporate headquarters and a principal place of business at 145 Broadway, Cambridge, MA 02142.

JURISDICTION AND VENUE

7. This is an action for patent infringement arising under the Patent Act, 35 U.S.C. § 1 *et seq*. Accordingly, this Court has subject-matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

8. This Court has personal jurisdiction over Akamai, as Delaware is Akamai's state of incorporation, and Akamai resides in Delaware. Akamai has also derived revenue from its infringing acts within this District.

9. Venue is proper in this District under 28 U.S.C. §§ 1391(b) and 1400(b), as Delaware is Akamai's state of incorporation, and Akamai resides in Delaware.

THE EQUILIBRIUM PATENTS AND "MEDIARICH SERVER"

10. The technology at issue in this suit traces its roots to the early 1990s when two veterans of the computer game industry, Sean Barger and Dave Theurer, teamed up to form Equilibrium and develop a software product called "DeBabelizer." Sold starting in the early 1990s to industry power-users and consumers alike, DeBabelizer enabled users to automatically edit ("batch process") collections of graphic images, animation, and video across over fifty different file types. It was powerful software, the full version of which sold for hundreds of dollars. The name "DeBabelizer" referred to the program's ability to import and normalize any format, then systematically edit a wide variety of otherwise incompatible media file types and then export them to any format.

11. With the growth of the web in the late 1990s, Equilibrium foresaw a new kind of Internet-based service that web developers could use to simplify the process of optimizing and maintaining rich media content automatically on websites. Equilibrium envisioned a system that would enable next-generation ecommerce and other applications.

12. On October 21, 1999, in order to protect this system, Equilibrium filed the first in a series of U.S. patent applications that would ultimately issue as the Equilibrium Patents. The first application (Application No. 09/425,326) issued from the United States Patent & Trademark Office as the '575 Patent on September 14, 2004. A copy of the '575 Patent is attached as Exhibit A.

13. On August 16, 2000, Equilibrium filed Provisional Application No. 60/226,043 and on August 14, 2001, it filed Continuation-in-Part Application No. 09/929,904, which issued as the '009 Patent on November 8, 2005. A copy of the '009 Patent is attached as Exhibit B.

14. On September 26, 2008, Equilibrium filed Divisional Application No. 12/238,842, which issued as the '110 Patent on February 19, 2013. A copy of the '110 Patent is attached as Exhibit C.

15. On February 26, 2010, Equilibrium filed Divisional Application No. 12/713,637, which issued as the '242 Patent on July 23, 2013. A copy of the '242 Patent is attached as Exhibit D.

16. On July 15, 2008, Equilibrium filed Divisional Application No. 12/173,747, which issued as U.S. Patent No. 8,656,046 (the "'046 Patent") on February 18, 2014. A copy of the '046 Patent is attached as Exhibit E.

17. On January 28, 2013, Equilibrium filed Continuation Application No. 13/752,110, which issued as the '745 Patent on October 13, 2015. A copy of the '745 Patent is attached as Exhibit F.

18. The Equilibrium Patents individually and collectively disclose substantial improvements to then-existing systems of Internet media delivery. Existing systems did not enable on-the-fly rich media generation and caching of rich media that was optimized for each user. In the novel method described in the Equilibrium Patents, each user's request contains information identifying the requested media and further indicating incremental optimizations that are performed prior to delivery to the user. The incrementally optimized media is cached for future delivery if another user request is received containing information requesting the same media and indicating the same incremental optimizations. The technology that the Equilibrium Patents disclosed is widely used today to power the intelligent edge networks that content

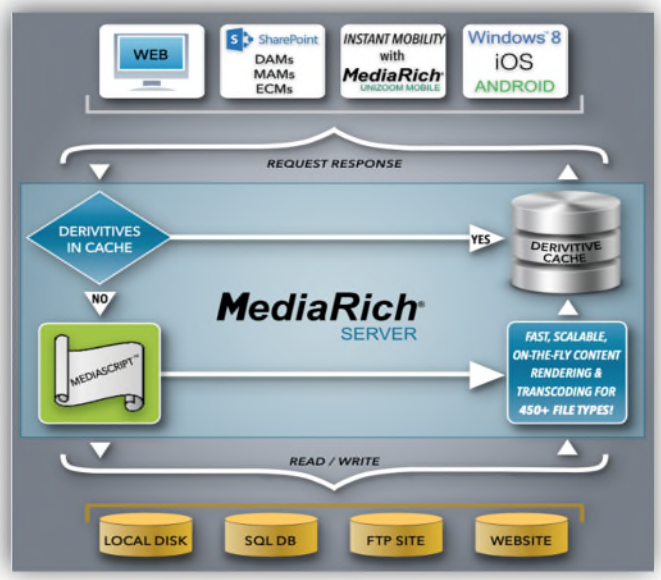
providers rely on to deliver media-rich Internet web pages and videos quickly and with very high quality. Without the innovations of the Equilibrium Patents, media-rich Internet content would be much slower to deliver and of lower quality and/or would require expensive investments in computing and network infrastructure. The Equilibrium Patents therefore disclose substantial improvements to computer and network technology. Those improvements were not well-understood, routine, or conventional in the "Web 1.0" computing and network environment that existed at the time they were filed.

19. On December 17, 2021, Equilibrium assigned the Equilibrium Patents to Equil IP Holdings LLC.

20. The Equilibrium Patents have been widely cited, including by Akamai. For example, according to Google Patents, the '575 Patent has been cited more than 200 times by other United States patents and patent applications. Among those citations are approximately ten patents that are identified as assigned to Akamai. (*See, e.g.*, U.S. Patent No. 7,653,706 ("Dynamic image delivery system"); U.S. Patent No. 7,725,602 ("Domain name resolution using a distributed DNS network"); U.S. Patent No. 7,912,978 ("Method for determining metrics of a content delivery and global traffic management network"); U.S. Patent No. 9,418,353 ("Methods and systems for delivering content to differentiated client devices"); 9,419,852 ("Systems and methods for identifying and characterizing client devices"); U.S. Patent No. 9,544,183 ("Methods and apparatus for providing content delivery instructions to a content server"); U.S. Patent No. 9,742,858 ("Assessment of content delivery services using performance measurements from within an end user client application"); and U.S. Patent No. 9,817,916 ("Methods and apparatus for accelerating content authored for multiple devices").) In at least one case (*see* U.S. Application No. 12/693,413), the '575 Patent was the basis for a rejection by the examiner.

21. The technology disclosed and claimed in the Equilibrium Patents was released by Equilibrium in 2000 as the "MediaRich Server." Since that time, Equilibrium has continuously offered MediaRich Server technology in the business-to-business market. Recent clients include Walmart, the Walt Disney Company, Sony Pictures, Warner Bros., The Metropolitan Museum of Art, the U.S. Department of Energy, and E. T. Browne Drug Co. These companies use Equilibrium technology to automatically process, manage, and serve rich media content to websites and mobile devices. The current version of one of the Equilibrium products that practice inventions disclosed in the Equilibrium Patents is MediaRich 6. (*See, e.g.*, Ex. G ("MediaRich 6 Brochure").)

22. One aspect of the MediaRich Server — and the Equilibrium Patents that claim the technology that powers it — is the ability to optimize rich media on-the-fly and cache what Equilibrium calls media "renditions" in real time in response to Internet user requests. (*See id.* at 3.) As illustrated in the graphic below, users of a wide variety of devices (from web browsers on desktop computers to apps on mobile devices) send requests for media content to websites and other network-hosted sources. Equilibrium's service sits between those two parts of the network:



23. MediaRich solves technical problems associated with delivering rich media content over the Internet that arise from the fact that each type of user device has different parameters that can be used to optimize media for viewing. Parameters like image size and resolution, compression type, compression level, frame rate, and many others can be used to optimize Internet media to make the most of each user's type of device, specific application, quality and type of Internet service available at the moment, and other attributes. The MediaRich Server detects or is sent optimization parameters and optimizes the requested media on the fly before sending it on to the user.

24. Once an optimized rendition is created, moreover, it is cached in the MediaRich Server. The next time any user is determined to have a need or request for the same media, the server checks the cache to see if a previously optimized rendition already exists. If it does, the pre-existing rendition is further optimized, if necessary, and sent. If not, a rendition can be made from the original media, sent, and cached to be used as intermediate or final media for the next request. Over time, the library of renditions in the cache builds up, further improving the responsiveness of the system and thus improving user experience.

THE AKAMAI "INTELLIGENT EDGE" NETWORK

25. Mr. Barger has been an evangelist for the Equilibrium technology for many years. Equilibrium has partnered with industry-leading Internet companies to enhance their services with Equilibrium technology. Among them is Akamai, a leading Internet platform provider. Unfortunately, Akamai has elected over the years to become an "efficient infringer" by recreating Equilibrium's patented service rather than continue to partner with Equilibrium or license its technology.

26. On information and belief, Akamai was founded in the late 1990s to help solve the growing problem of Internet latency by offering Content Delivery Network (CDN) services.

A CDN is a network of computers located at geographically dispersed data centers. The CDN network computers replicate and store website information so that it is available at physical locations closer to users who might access the website. On information and belief, at the time of its founding, Akamai's network replicated website data and distributed it throughout the network to pre-position it closer to users, rather than generate optimized content on the fly.

27. In February 2000, Equilibrium reached out to Akamai to explore options for integrating Equilibrium's MediaRich technology with Akamai's CDN service. Equilibrium explained:

> Equilibrium's next generation product building on our 10 years of automated media processing experience, patent pending, is something that is a natural extension to the Akamai network . . . . It is aimed at content and media servers, integrates with existing server/database environments and dynamically generates media and content to the webserver cache on-the-fly. The system handles images, animation, digital video and sound currently, and has been architected to handle any media type . . . . It . . . handles media cache management for web servers and creation/delivery of media to handheld/wireless devices automatically so that the web designer doesn't have to integrate with proxy server systems or create multiple sites.

28. Akamai's then Chief Operating Officer (and future Chief Executive Officer) Paul Segan responded, directing his staff to reach out to Equilibrium "to learn more about Equilibrium and to assess how Akamai might become involved with [Equilibrium]."

29. Sean Barger and others from Equilibrium met with three Akamai Director-level executives and its principal engineer four days later. Contemporaneous memoranda indicate that Akamai "saw a clear synergy between Equilibrium's media serving technology and Akamai's data distribution system and expressed interest in further exploring possibilities for integration of the two technologies."

30. Akamai's Principal Engineer James Kistler expressed skepticism about whether original media could be brought to the edge of the network for dynamic image generation.

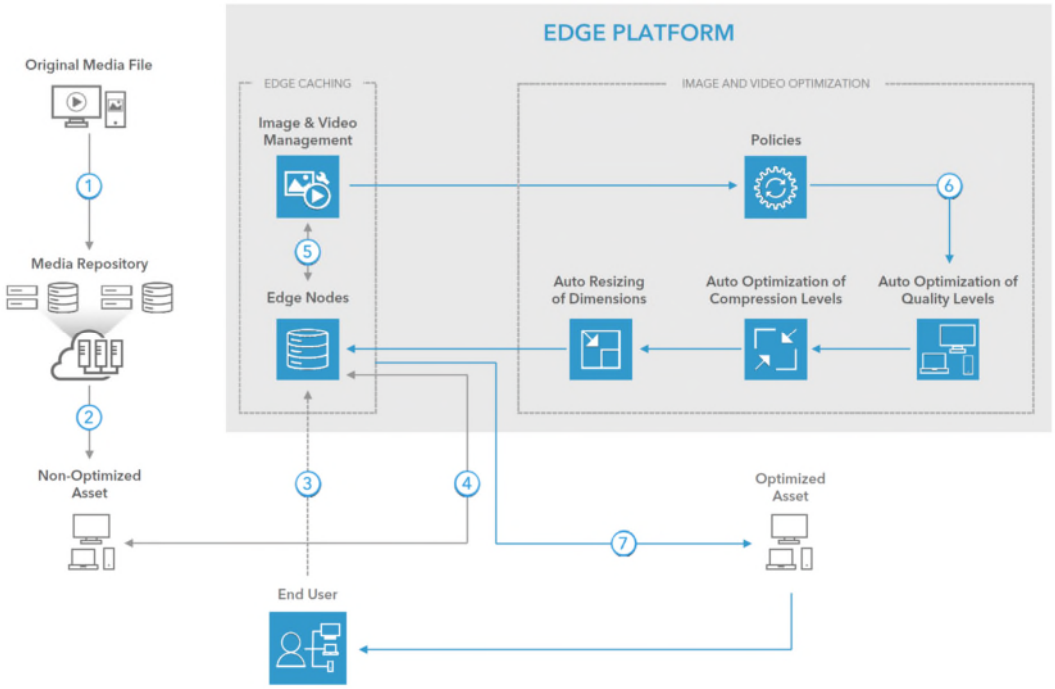
Akamai's Director of Business Development Ravi Sundararajan suggested that the Equilibrium technology could be a good fit for a new initiative Akamai was then architecting called "EdgeAdvantage." In this new system, Akamai suggested that Equilibrium's media server could connect directly to Akamai's caching servers closer to the edge of the network. Mr. Barger agreed that this would be a good approach.

31. The parties agreed to, and eventually did, include Equilibrium on Akamai's partner list. This made it easy for Akamai's customers to use Equilibrium MediaRich services through the Akamai Content Delivery Network. However, Akamai resisted Equilibrium's offers to establish a more extensive partnership or more complete integration of Equilibrium's technology into Akamai's edge network.

32. Over the years, from time-to-time, Equilibrium and Akamai would discuss whether an integrated product offering would be appropriate. For example, when John Bishop joined Akamai from Cisco in 2014 to become Akamai's Chief Technology Officer, Mr. Barger met with him at an industry conference in Las Vegas. The pair later exchanged messages. Mr. Barger proposed that they should discuss opportunities for further integration of the two companies' products. Mr. Bishop told Mr. Barger that he was just settling in and wanted to get the "lay of the land" before continuing discussions. The discussions never resumed, however.

33. A little over two years later, Akamai announced it had developed a "new image management service" that it called "Image Manager." Just like Equilibrium's MediaRich offering, Akamai's Image Manager promised to "engage online audiences with attractive images that are automatically optimized for both maximum visual quality and performance while reducing the cost and effort to transform and deliver web-ready images." Image Manager promised "[f]aster sites and apps on any device, anywhere by reducing bytes delivered to web and mobile users."

34. Just like MediaRich, Akamai's Image Manager (today called "Image and Video Manager" or "IVM") stores "one high-quality, pristine file" in a media repository as a "Non-Optimized" Asset. Data from the asset is transmitted to "Edge Nodes" of an "Edge Cach[e]." The cached data is transmitted for "Image and Video Optimization" that automatically adjusts factors such as quality, compression, and dimension resizing, based on information received about the "user context, including browser, device types, and the quality level of the end user's current network connection." The optimized media is cached at the Edge Node and served as an "Optimized Asset" to the end user.



35. According to Akamai:

> [IVM] means developers no longer need to worry about setting image-level quality. By automatically optimizing images for maximum perceived quality with minimum image weight, the algorithm lets developers relax knowing that images will be delivered at a specified quality that's optimal for end users.

36. As a result, Akamai boasts that rich media content is "[o]ptimized for every visitor" and "simplified for developers."

37. IVM is just one example of an infringing Akamai service that replicates the features of Equilibrium MediaRich Server. Other features of services that grew out of Akamai's "EdgeAdvantage" to be part of Akamai's "Intelligent Edge Platform" employ image and video optimization methodologies infringing one or more of the claims of the Equilibrium Patents.

EQUILIBRIUM'S PATENTED INVENTIONS

38. The '745 Patent is titled "Optimization of Media Content Using Generated Intermediate Media Content" and it issued on October 13, 2015. It claims priority to an application filed on October 21, 1999. The remaining Equilibrium Patents are members of the same family as the '745 Patent and share substantially similar disclosures.

39. The '745 Patent claims an "automated graphics delivery system." (Ex. F ('745 Patent) at 5:1-5.) The disclosed invention improves on prior art web media delivery systems by providing media "[a]sset management, automatic image manipulation, automatic image conversion, automatic image upload, and automatic disk management." (*Id.* at 8:8-13.) The automatic image optimization, delivery, and caching is done on demand and in real time in response to user requests. "Web media is generated only if requested by a client browser." (*Id.* at 5:35.) This results in a "dynamic Web site wherein images are generated on demand from original assets, wherein only the original assets need to be updated." (*Id.* at 5:11-14).

40. Because images are optimized on demand in response to specific user requests, the media can be optimized to fit the specific needs of the individual user. For example, the system can optimize media throughput based on "current Web server traffic." (*Id.* at 5:15-17.) Similarly, the system can factor "client connection speed" to determine "optimum quality and file size." (*Id.* at 5:19-20.)

41. In the Equilibrium System, once media has been optimized in response to a user request, it is stored in a cache. A "media creation subsystem" is employed to create the optimized image and then "store the results in the media cache database." (*Id.* at 8:57-60.) Since this optimized media is automatically cached, "identical requests can be handled without regeneration of images." (*Id.* at 5:24-25.)

MARKING

42. Equilibrium was not required to mark its website, user manuals or related documents because its MediaRich service is a patented system which lacks a tangible item to mark. Additionally at least the asserted Claim 1 of the '745 Patent is a method claim which does not give rise to an obligation to mark under 35 U.S.C. § 287. Nevertheless, Equilibrium has marked its corporate website, product brochures, marketing emails, and other communications. For example, the Equilibrium MediaRich 6 brochure (2021) includes the following identification: "U.S. PATENT NUMBERS 6,792,575, 6,964,009, 8,381,110, 8,495,242, 8,656,046 AND 9,158,745 FOR THE AUTOMATED CONTENT PROCESSING, DYNAMIC ON-THE-FLY VISUALIZATION OF CONTENT AND DYNAMIC ON-DEMAND GENERATION OF DIGITAL MEDIA ASSETS." (Ex. G at 1.)

THE ACCUSED PRODUCTS

43. Akamai's Image and Video Manager feature of its Intelligent Edge Network is one example of how Akamai's services infringe. IVM practices all the limitations of one or more of the Equilibrium Patent claims, including at least exemplary independent claim 1 of the '745 Patent.

44. Claim 1 of the '745 Patent recites:

> [Preamble] A method in a host computer for developing transformation processing operations to optimize media content playback to a plurality of

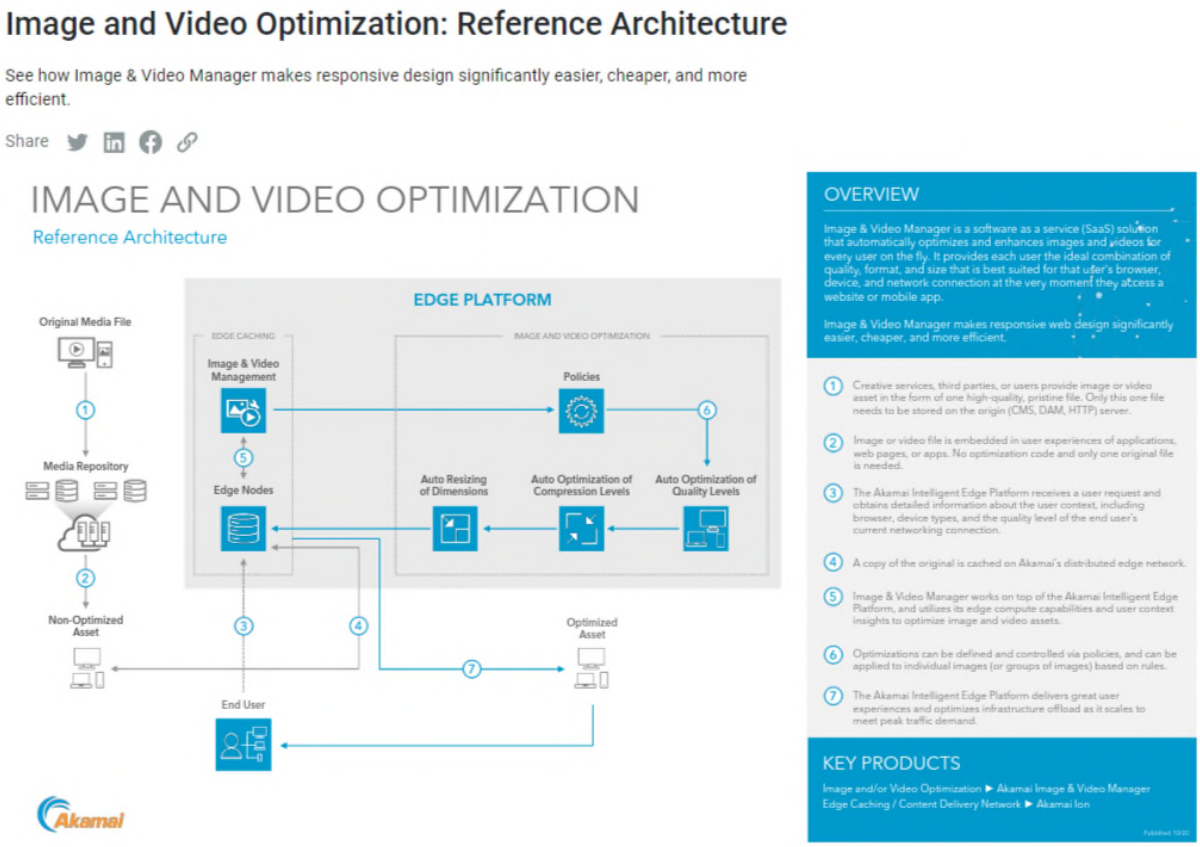
> playback devices connected with the host computer in a network, the method comprising:
>
> [1a.] receiving a first request from a first playback device for media content;
>
> [1b.] wherein the first request contains information, the information indicating a first original media content, first content generation operations, and first transformation operations;
>
> [1c.] determining whether a previously-generated first intermediate media content is available for reuse, the previously-generated first intermediate media content having been created using the first original media content and the first set of content generation operations; and
>
> [1d.] responsive to determining that a previously-generated first intermediate media content is available, creating a first optimized media content for the first playback device by performing the first set of transformation operations on the previously-generated first intermediate media content; and
>
> [1e.] responsive to determining that a previously-generated first intermediate media content is not available, creating a first optimized media content for the first playback device by creating a first intermediate content using the first original media content and the first set of content generation operations, and performing the first set of transformation operations on the first intermediate media content; and
>
> [1f.] sending the first optimized media content to the first playback device.

(Ex. F at 23:9-39.)

45. Akamai's Image and Video Manager employs "a method in a host computer for developing transformation processing operations to optimize media content playback to a plurality of playback devices connected with the host computer in a network." (*Id.* at 23:9-12.) It employs a method in Akamai host edge network computers that develops transformation processing operations to optimize media content playback to a plurality of playback devices, such as computers and mobile phones, which are connected to the Akamai edge network via the Internet. Thus, the preamble, if limiting, is satisfied.

46. According to Akamai, "Image & Video Manager is a software as a service (SaaS) solution that automatically optimizes and enhances images and videos for every user on the fly. It provides each user the ideal combination of quality, format, and size that is best suited for that user's browser, device, and network connection at the very moment they access a website or mobile app." (Ex. H ("Reference Architecture") at Overview.)

47. Akamai publishes the following "Reference Architecture" to describe the methods employed in IVM:



(*Id.*)

48. According to Akamai, IVM "comes out of the box ready to help developers optimize images, videos, and animated GIFs to deliver great web experiences." (Ex. I at 1.)

49. IVM employs a step of "receiving a first request from a first playback device for media content." (Ex. F ('745 Patent) at 23:13-14.) Step 3 of the Akamai IVM workflow

depicted in the Reference Architecture above is: "The Akamai Intelligent Edge Platform receives a user request and obtains detailed information about the user context, including the browser, device types, and the quality level of the end user's current networking connection." (Ex. H.) According to Akamai, "all [I]mage [M]anager transformations whether they are image optimizations[,] image transformations or . . . video transformations . . . all happen at the time of the request . . . so if we don't have the variant video asset inside of cache then that very first request for that video asset would mean that we have to go and that's when we will kick off that very first encoding that occurs." (Ex. J ("Webinar - Image Manager 4.0") at 1.)

50. IVM employs a step "wherein the first request contains information, the information indicating a first original media content, first content generation operations, and first transformation operations." (Ex. F at 23:15-18.) The Akamai IVM workflow depicted in the Reference Architecture above demonstrates that in the IVM system, the workflow is directed to accessing and optimizing a "one high-quality, pristine file" referred to as an "Original Media File." (Ex. H, Step 1.) The first request that IVM receives contains information containing, for example, "browser, device types, and the quality level of the end user's current networking connection." (*Id.*, Step 3.) IVM uses this information as indications from which it determines which "image transformations" and "image optimizations" to perform on which original media content. (Ex. J at 4.) The IVM also "automatically optimizes and enhances images and videos for every user on the fly." (Ex. H, Overview.) Thus, IVM provides "each user the ideal combination of quality, format, and size that is best suited for that user's browser, device, and network connection at the very moment they access a website or mobile app" based on the information contained in the first request. (*Id.*)

51. IVM employs a step of "determining whether a previously-generated first intermediate media content is available for reuse, the previously-generated first intermediate

media content having been created using the first original media content and the first set of content generation operations." (*See* Ex. F ('745 Patent) at 23:19-23.) When a user sends a request, Akamai's IVM checks for a cached copy of a previously-generated first intermediate media content. According to Akamai, "whenever the user makes a first request . . . so all [I]mage [M]anager transformations whether they are image optimizations[,] image transformations or any of the video transformations that we showed all happen at the time of the request so we leverage our caching system pretty heavily to push and to keep all the derivative assets that we create in cache so that we can deliver them out to the end user as quickly as possible and reduce that latency[.] If the assets aren't in the cache then we have to do a transformation and that's what we call the real time or the cache miss hit . . . . [S]o if we don't have the variant video asset inside of cache then that very first request for that video asset would me that we have to go and that's when we will kick off that very first encoding that occurs." (Ex. J at 1-11, 13-17.)

52. Akamai IVM employs a step wherein "responsive to determining that a previously-generated first intermediate media content is available, creating a first optimized media content for the first playback device by performing the first set of transformation operations on the previously-generated first intermediate media content." (Ex. F at 23:24-29.) The IVM architecture uses the "Edge Caching" architecture of Akamai's Intelligent Edge Platform to store previously-requested intermediate media content at the edge of the network. (*See* Ex. H.) A copy of the original is cached on Akamai's distributed edge network. IVM leverages the caching system to "keep all of the derivative assets" that it creates in response to user requests so that it can "deliver them out to the end user as quickly as possible" and achieve reduced latency. (Ex. J at 7-9.) The IVM architecture can automatically optimize "compression" and "quality levels." (Ex. H, Step 6 in diagram.) As a result, according to

Akamai, it "provides each user the ideal combination of quality, format, and size that is best suited for that user's browser, device, and network connection at the very moment they access a website or mobile app." (*Id.*, Overview.)

53. Akamai IVM employs a step wherein "responsive to determining that a previously-generated first intermediate media content is not available, creating a first optimized media content for the first playback device by creating a first intermediate content using the first original media content and the first set of content generation operations, and performing the first set of transformation operations on the first intermediate media content." (Ex. F ('745 Patent) at 23:30-37.) In Akamai's IVM architecture, when the user makes a first request for an original media for which an intermediate media content is not available, that is called a "real time" or "cache miss hit." (Ex. J at 11.) In that case, the IVM pulls and transforms the asset, caches it, and makes it available for optimization and delivery to the end user. (*See* Ex. H, Step 6 in diagram.)

54. IVM employs a step of "sending the first optimized media content to the first playback device." (Ex. F at 23:38-39.) IVM system transmits the optimized media content to the requesting computer, mobile phone, or other playback device over the Internet. (*See also* Ex. H, Step 7.)

55. Akamai's Adaptive Media Delivery is another example of how Akamai's Intelligent Edge Network service infringes.

56. Claim 1 of the '242 Patent recites:

> [Preamble] A non-transitory computer program product for causing a computing system to dynamically transcode media content to be presented on a client presentation system, the computer program product comprising:
>
> [1a.] one or more computer-readable media, the one or more computer-readable media having stored thereon computer-executable instructions that, when

executed by one or more processors of the computing system, cause the computing system to perform the following:

[1b.] an act of receiving a request for media content to be delivered to a client presentation system, wherein the requested media content has a limited number of base transcoding profiles associated therewith, each base transcoding profile corresponding to a cached version of the requested media content;

[1c.] at the time of the request, and without input by a network administrator, an act of automatically identifying transcoding parameters to be applied to the requested media content prior to delivery to the client presentation system, wherein identification of transcoding parameters is based on one or more formats of any client presentation system;

[1d.] an act of transcoding the requested media content in accordance with the identified transcoding parameters, such that the identified transcoding parameters are used to perform additional incremental transcoding on top of the base transcoding profile;

[1e.] wherein the act of act of transcoding the requested media content in accordance with the identified transcoding parameters comprises:
an act of selecting a pre-existing base transcoded version of the requested media content comprising intermediate derivative media that has been transcoded in accordance with only a portion of the identified transcoding parameters; and
an act of creating a final version by incrementally performing further transcoding of the pre-existing base transcoded version in accordance with a remaining portion of the identified transcoding parameters;

[1f.] an act of causing the transcoded media content to be delivered to the client presentation system; and

[1g.] an act of caching the transcoded media content.

(Ex. D at 22:25-67.)

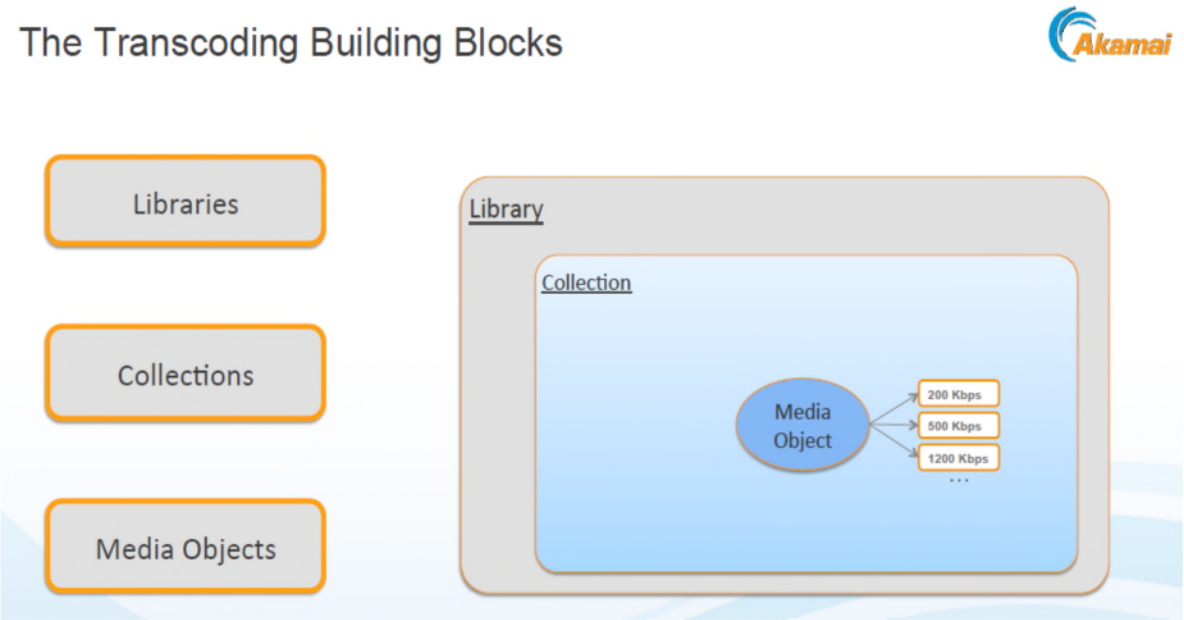
57. Akamai's Adaptive Media Delivery ("AMD") employs a computer program that performs all of the acts described in Claim 1 of the '242 Patent, and therefore infringes. (*See* Ex. K, adaptive-media-delivery.pdf.)

58. AMD is a media delivery solution that is part of Akamai's CDN. (*See* Ex. K at 1.) Akamai's CDN servers are a computing system. (*See id.*) Servers operate by executing computer programs. Computer programs comprise computer-readable media that have

computer-executable instructions that, when executed by one or more processors of the computing system, cause the computing system to perform certain acts. (*See* Ex. L, akamai-adopts-open-approach-to-transcoding_website.pdf.) Thus, the '242 Patent preamble, if limiting, and Element 1a are satisfied.

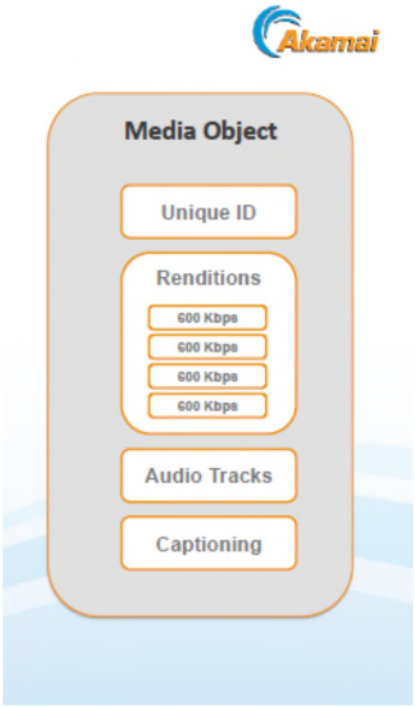
59. AMD performs an "act of receiving a request for media content to be delivered to a client presentation system, wherein the requested media content has a limited number of base transcoding profiles associated therewith, each base transcoding profile corresponding to a cached version of the requested media content." (Ex. D at 22:34-39; *see also* Ex. M at 1, Ex. N at 10-14.)

60. According to Akamai, "End-user requests" are directed to "Akamai edge servers" that read media and determine how to deliver it. (Ex. M at 1.) The requested media has associated with it a limited number of base transcoding profiles, each of which corresponds to a cached version of the requested media. (*See* Ex. N at 11, 14.) For example, in the AMD system, a media object in a collection, which must be cached, has different transcoded versions with different bit rates which Akamai depicts as follows:



(*Id.* at 11.)

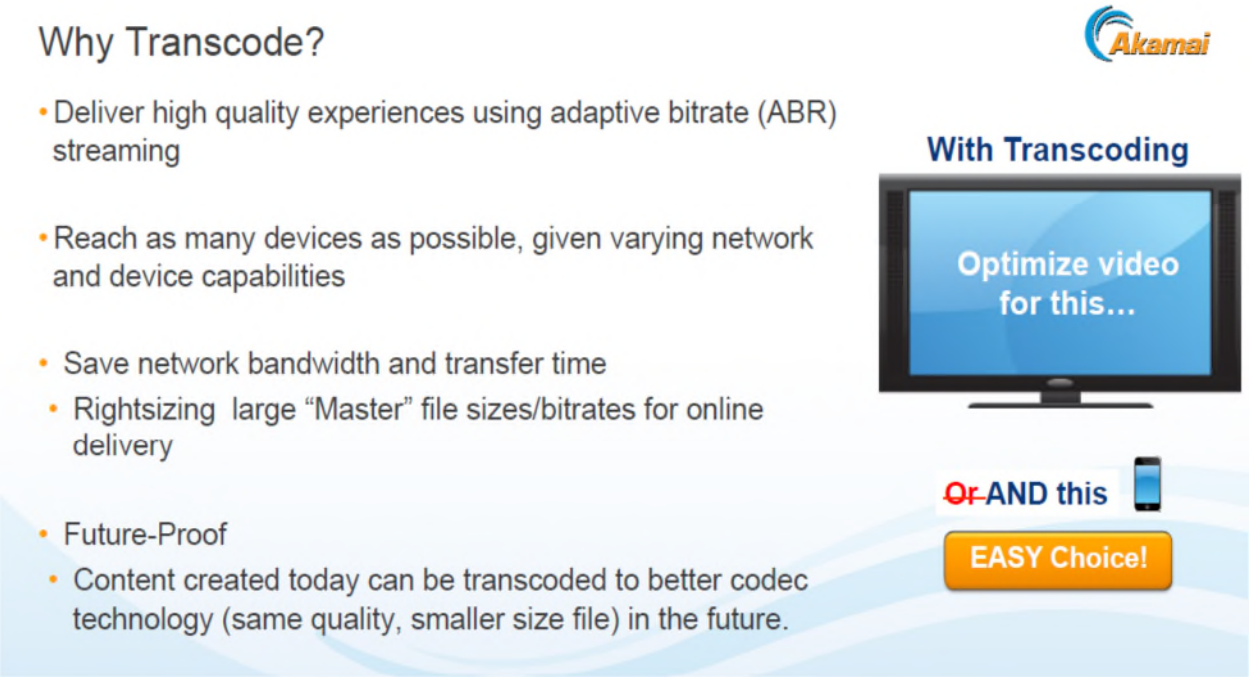
61. Additionally, each media object in AMD may have different renditions, which Akamai depicts as follows:



(*Id.* at 14.) AMD thus satisfies Element 1B.

62. The AMD system "identif[ies] transcoding parameters to be applied to the requested media content" based on the end-user device features. (Ex. D at 22:40-46; *see also* Ex. N at 2, 5.) It provides live transcoding in real time to different types of end-user devices. (*See* Ex. D at 22:34-39; *see also* Ex. O ("Transcoding 24x7").) It uses "[c]onfiguration elements," such as "rules" and "behaviors," for determining how to respond to requests from end users. (Ex. P at 4.) These rules and behaviors, among other things, determine how the AMD system responds to requests for media content without input by a network administrator. (*See id.*) The AMD automatically selects and streams the highest quality bit rate to a video end point based on the end-point device "connection speed and device capabilities." (Ex. Q at 2.) Each video is

personalized for each viewer based on "device type, network conditions" and other factors. (Ex. K at 4.) Akamai depicts AMD's capabilities graphically as follows:

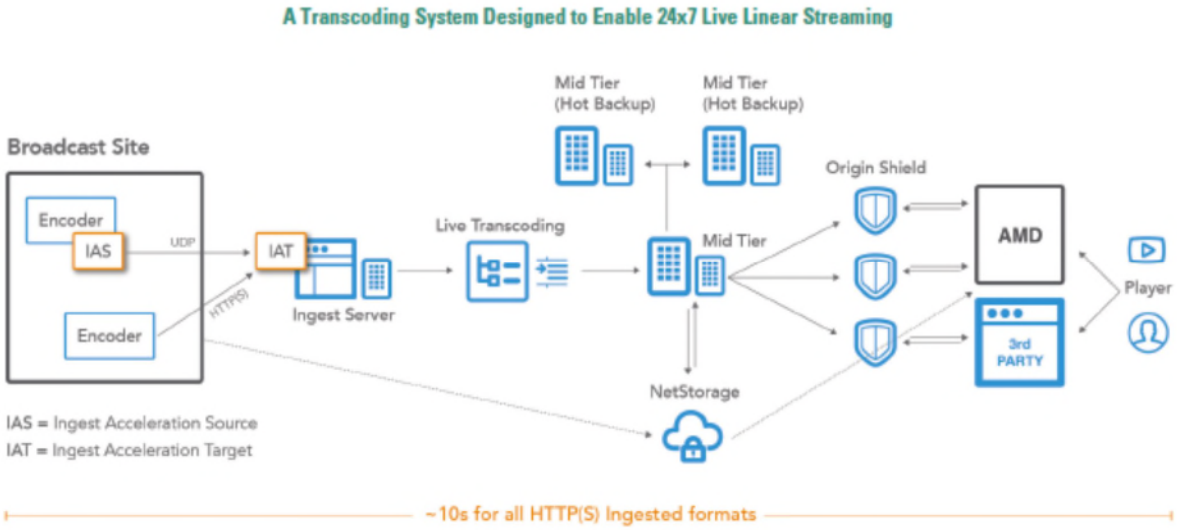


(Ex. N at 2.)

63. This illustrates that AMD's transcoding capabilities are designed and intended to optimize different formats, such as large-screen televisions and small-screen mobile phones. (*See id* at 2, 5, 16-17.) AMD therefore satisfies Element 1c.

64. The AMD system transcodes the media content by "perform[ing] additional incremental transcoding on top of the base transcoding." (Ex. D at 22:47-51.) As noted above in 1b, the media collection in AMD has different transcoded versions. (*See supra* ¶ 59.) These transcoded versions are examples of base transcoded versions. (*See id.*) AMD takes these base versions and "Update[s], Adapt[s], [and] Re-transcode[s]" groups of such videos within a collection. (Ex. N at 13.) These base transcoded versions can be re-transcoded. (*See id.*) Such re-transcoding is additional incremental transcoding on top of the base transcoding. (*See id.*)

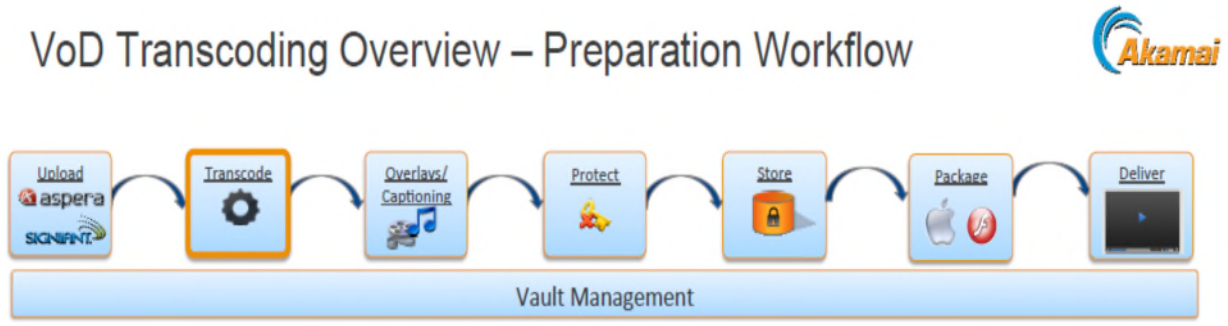
AMD also enables "live linear streaming" of videos which involves incremental live transcoding of videos upstream of AMD, as Akamai depicts in the graphic below:



(Ex. O at 1; *see also* Ex. R at 1, Ex. N at 10.) Therefore, AMD satisfies Element 1d.

65. In AMD, as discussed above, the transcoding includes (1) selecting base transcoded versions of the requested media, which are intermediate media transcoded with only a portion of the transcoding parameters, and (2) creating a final version by incrementally performing further transcoding with the remaining portion of the transcoding parameters. (*See supra* ¶¶ 59-64.) As demonstrated above in relation to 1b, 1c, and 1d, the Akamai system includes base transcoding and additional incremental transcoding on top of the based transcoding. (*See id.*) The overall transcoding (including the base and additional incremental transcoding on top of the base transcoding) optimizes the media content for different end-user devices such as televisions and mobile phones. (*See* Ex. N at 2.) This optimized media content is the final version of the media content. (*See id.* at 13.) AMD therefore satisfies Element 1e.

66. AMD delivers the transcoded media content to the end-user device in the final "deliver" stage which Akamai depicts as follows:



(*See id.* at 10.) AMD therefore satisifes Element 1f.

67. AMD caches the transcoded media content in a "storage" stage depicted above. (*See id.*) The content is "cached on edge servers" according to "caching rules and behaviors" that AMD is configured to have set. (Ex. M at 2; *see also* Ex. S.) AMD therefore satisfies Element 1g.

68. While Akamai makes some technical information about its services publicly available, as demonstrated above, there is much more information that is not accessible. Equil IP anticipates that discovery may reveal additional Equilibrium Patents that Akamai has infringed, and Equil IP reserves the right to assert such patents in this action.

WILLFUL INFRINGEMENT

69. As set forth above, Akamai was aware of the Equilibrium Patents and was aware of the content, scope, and claims of the Equilibrium Patents. On information and belief, Akamai knew that its activities infringed claims of the Equilibrium Patents. As discussed above, Equilibrium called Akamai's attention to its pending patents at the very outset of the parties' discussions in February 2000 in which Equilibrium disclosed to Akamai the Equilibrium technology, *i.e.*, the technology disclosed and claimed in the Equilibrium Patents. Moreover, as also set forth above, the Equilibrium Patents are identified on the Equilibrium website and on Equilibrium product marketing materials. Furthermore, as also set forth above, one of more of

the Equilibrium Patents was cited in prosecution of various Akamai patents and, on one or more occasions, was cited by the examiner as a basis for rejecting claims that Akamai sought in prosecution. On information and belief, Akamai understood that the Equilibrium Patents were relevant to its activities and in particular to its EdgeAdvantage network and successor products. Accordingly, Akamai knew, or should have known, that its conduct amounted to infringement of the Equilibrium Patents, in knowing and flagrant disregard of Equil IP's patent rights.

COUNT I
Infringement of U.S. Patent No. 9,158,745

70. Equil IP repeats and re-alleges each of the allegations in paragraphs 1-69 of this Complaint.

71. Akamai has directly infringed, either literally or under the doctrine of equivalents, at least Claim 1 of the '745 Patent at least by manufacturing, using, selling, distributing, licensing, and/or offering for sale Intelligent Edge services incorporating the Image and Video Manager and other features having similar media optimization functionality without the authority of Equil IP.

72. As recited above, Akamai's infringement has been willful, wanton, and deliberate, and in knowing and flagrant disregard of Equil IP's patent rights.

73. Equil IP has been damaged and harmed by Akamai's infringement.

COUNT II
Infringement of U.S. Patent No. 8,495,242

74. Equil IP repeats and re-alleges each of the allegations in paragraphs 1-73 of this Complaint.

75. Akamai has directly infringed, either literally or under the doctrine of equivalents, at least Claim 1 of the '242 Patent at least by manufacturing, using, selling, distributing, licensing, and/or offering for sale Intelligent Edge services incorporating the Adaptive Media

Delivery and other features having similar transcoding functionality without the authority of Equil IP.

76. As recited above, Akamai's infringement has been willful, wanton, and deliberate, and in knowing and flagrant disregard of Equil IP's patent rights.

77. Equil IP has been damaged and harmed by Akamai's infringement.

DEMAND FOR JURY TRIAL

Equil IP hereby demands trial by jury on all claims and issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Equil IP respectfully requests that the Court enter judgment in favor of Equil IP and against Akamai as follows:

A. Finding that Akamai has infringed at least the Asserted Patents.

B. Finding that Akamai's infringement of the Asserted Patents is willful.

C. Awarding Equil IP the damages it sustained as a result of Akamai's patent infringement, including, but not limited to, a reasonable royalty and/or lost profits.

D. Awarding Equil IP enhanced damages under 35 U.S.C. § 284 as a result of Akamai's willful patent infringement.

E. Finding this to be an exceptional case under 35 U.S.C. § 285 and awarding Equil IP its attorney fees.

F. Awarding Equil IP its costs incurred in this action.

G. Granting Equil IP such other and further relief as the Court may deem just, proper, and appropriate.

Respectfully submitted,

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