

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNIFIED PATENTS, LLC

Petitioner

v.

NOBLEWOOD IP LLC

Patent Owner

IPR2022-01111

U.S. Patent 7,941,553

PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT 7,941,553

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PETITIONER’S EXHIBIT LIST

EX1001	US Patent 7,941,553 to Baumeister et al.
EX1002	Prosecution File History of US Application 10/624,353
EX1003	US Patent 7,013,322 to Nils Lahr
EX1004	WO 00/29990 to Lewis et al.
EX1005	US Patent 5,996,015 to Day et al.
EX1006	US Patent 6,493,748 to Nakayama et al.
EX1007	Declaration of Dr. Henry H. Houh
EX1008	“An overview of videostreaming on the internet and its application to surgical education,” Rosser et al., Surgical Endoscopy, 2001
EX1009	RFC 1738 (1994)
EX1010	Declaration of Kevin Jakel
EX1011	“The Apache HTTP Server Project,” IEEE Internet Computing, July-August 1997, pp. 88–90.
EX1012	Microsoft Computer Dictionary (5 th ed.) (excerpts)
EX1013	US Patent 6,594,699 to Sahai et al.
EX1014	“Streaming-Media Knowledge Discovery,” Pieper et al., IEEE Computing 2001, pp. 68–74.
EX1015	“The workings of clients and servers in WWW,” Nigel Edwards, 1994.

I. MANDATORY NOTICES UNDER 37 C.F.R. §42.8

A. Real Party-in-Interest

Pursuant to 37 C.F.R. §42.8(b)(1), Unified Patents, LLC (“Unified” or “Petitioner”) certifies that Unified is the real party-in-interest, and further certifies that no other party exercised control or could exercise control over Unified’s participation in this proceeding, the filing of this petition, or the conduct of any ensuing trial. In view of *Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1242–44 (Fed. Cir. 2018), Unified has submitted voluntary discovery in support of its certification. See EX1010 (Declaration of Kevin Jakel).

B. Related Matters

As of the filing date of this Petition, and to the best knowledge of Petitioner, U.S. Patent 7,941,553 (the “553 Patent,” EX1001) has been involved in the following proceedings:

Case Caption	Number
<i>Noblewood IP LLC v. The New York Times Company</i> (S.D.N.Y.) (complaint filed Jan. 31, 2022) (dismissed May 12, 2022)	1:22-cv-00842
<i>Noblewood IP LLC v. Virtucom Inc.</i> (S.D.Tex.) (complaint filed Jan. 31, 2022)	3:22-cv-00227
<i>Noblewood IP LLC v. Fox News Network, LLC et al.</i> (D. Del.) (complaint filed Jan. 31, 2022) (dismissed Apr. 20, 2022)	1:22-cv-00135
<i>Noblewood IP LLC v. ViacomCBS Inc.</i> (D. Del.) (complaint filed Jan. 31, 2022) (dismissed May 17, 2022)	1:22-cv-00135
<i>Noblewood IP LLC v. NBCUniversal Media, LLC</i> (D. Del.) (complaint filed Jan. 31, 2022) (dismissed Mar. 11, 2022)	1:22-cv-00133
<i>Noblewood IP LLC v. Wolters Kluwer NV</i> (E.D. Tex.) (complaint filed Feb. 25, 2022) (dismissed May 27, 2022)	4:22-cv-00136

<i>Noblewood IP LLC v. Pure Barre, LLC</i> (E.D. Tex.) (complaint filed Feb. 25, 2022)	4:22-cv-00135
<i>Noblewood IP LLC v. Strengthen Lengthen Tone</i> (S.D.N.Y.) (complaint filed Feb. 28, 2022)	1:22-cv-01683
<i>Noblewood IP LLC v. Everyday Health, Inc. et al.</i> (D. Del.) (complaint filed Feb. 28, 2022)	1:22-cv-00269
<i>Noblewood IP LLC v. Dotdash Meredith, Inc.</i> (D. Del.) (complaint filed Feb. 28, 2022)	1:22-cv-00267
<i>Noblewood IP LLC v. Alamo Drafthouse Cinemas, LLC</i> (E.D. Tex.) (complaint filed May 27, 2022)	9:22-cv-00084
<i>Noblewood IP LLC v. Wolters Kluwer US Corp.</i> (D. Del.) (complaint filed May 27, 2022)	1:22-cv-00690

C. Lead and Back-up Counsel and Service Information

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consents to electronic service.

II. CERTIFICATION OF GROUNDS FOR STANDING

Petitioner certifies pursuant to Rule 42.104(a) that the '553 Patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting this *inter partes* review.

III. OVERVIEW OF CHALLENGE AND RELIEF REQUESTED

Pursuant to Rules 42.22(a)(1) and 42.104(b)(1)-(2), Petitioner challenges claims 1, 4, 6, 8, 11, and 13 (“challenged claims”).

A. Prior Art Patents and Printed Publications

The '553 Patent was filed on July 22, 2003, and claims priority to a European application filed October 18, 2002. At this time, Petitioner assumes that this priority date is correct.

The following references are pertinent to the unpatentability grounds explained below:

1. U.S. Patent 7,013,322 to Nils Lahr (“*Lahr*” (EX1003)) (filed January 29, 2001, issued March 14, 2006).
2. WO 00/29990 to Lewis et al. (“*Lewis*” (EX1004)) (published May 25, 2000).
3. U.S. Patent 5,966,015 to Day et al. (“*Day*” (EX1005)) (issued November 30, 1999).
4. U.S. Patent 6,493,748 to Nakayama et al. (“*Nakayama*” (EX1006)) (filed

July 27, 2000, issued December 10, 2002).

Lahr and *Nakayama* qualify as prior art under at least 35 U.S.C. § 102(e). *Lewis* and *Day* qualify as prior art at least under 35 U.S.C. § 102(b) and (a). None of the references were considered by the examiner or cited during the '553 Patent's prosecution.

B. Statutory Grounds for Challenges

This Petition, supported by the declaration of Dr. Henry Houh (EX1007), requests cancellation of the challenged claims under the ground below:

Ground #1: Claims 1, 4, 6, 8, 11, and 13 are obvious under 35 U.S.C. § 103(a) over the combined teachings of *Lahr* and *Lewis*.

Ground #2: Claims 1, 4, 8, and 11 are obvious under 35 U.S.C. § 103(a) over the combined teachings of *Day* and *Nakayama*.

IV. U.S. PATENT 7,941,553

A. Summary

The '553 Patent relates to a method and computer-readable program for receiving a request for a particular media file from a client computer and providing a metafile containing information about the identification, location, and format of the media file to the client computer for the purposes of streaming a media file over a distributed information system. *See* '553 Patent (EX1001), claim 1. According to the '553 Patent, providing a metafile in response to a request for a media file is an

advantage, allegedly because the “need of creating, maintaining and understanding metadata is removed.” *Id.* at 8:59–61. That is, according to the ’553 Patent, web pages need not link directly to metadata or metafiles, but rather, web pages may link to media files themselves, and requests for such media files may be reinterpreted into requests for metafiles instead. *See generally id.* at Abstract; Houh (EX1007), ¶¶ 37–38.

As relevant to the challenged claims, the ’553 Patent describes a server receiving a request for a particular media file from the client computer, then providing a metafile. ’553 Patent (EX1001), 3:32–36.

Figure 1, reproduced below, illustrates the request flow when a client requests to stream media content. *Id.* at Fig. 1.

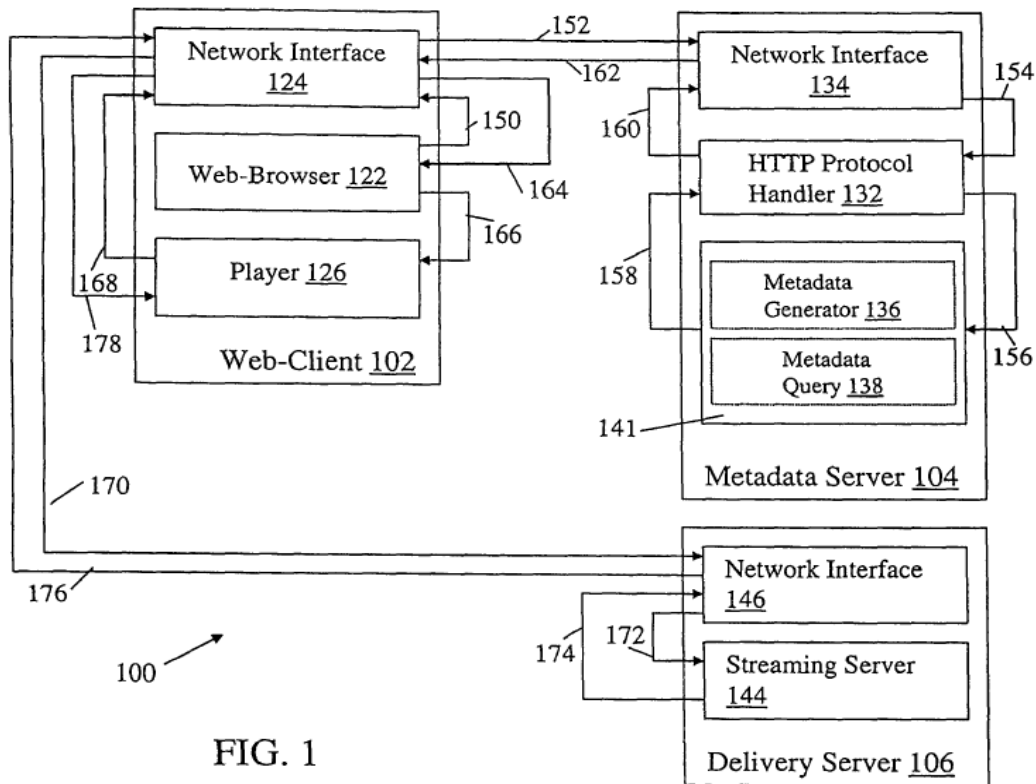


FIG. 1

'553 Patent (EX1001), Fig. 1

As shown in Figure 1, web browser 122 composes an HTTP request for a particular media content file and sends it to the web clients' network interface 124 (arrow 150). *Id.* at 5:45–47. To initiate this action, in one example, a user may click an HTML document link or enter a URL into a browser input field. *Id.* at 5:47–50. Although the request URL points to the media file itself and not the streaming metafile, the HTTP protocol handler 132 reinterprets the HTTP request so that it returns streaming metadata instead. *Id.* at 5:50–66.

Specifically, as depicted, the server intercepts a download request for the

actual media file and reinterprets the download request into a request for receiving a corresponding metafile. *Id.* at 3:39–41. Thus, instead of returning the requested media file, a metafile is returned that allows the client to immediately stream the media file without having to wait for the download of the media file to be finished. *Id.* at 3:41–45.

For the HTTP protocol handler 132 to stream metadata, the handler requests metadata for the requested media resource either from the metadata generator 136 or from the metadata query component 138 (arrow 156). *Id.* at 6:2–3. In response, either the metadata generator 136 will generate the media file based on known streaming server types and the type of the requested media resource, or metadata query component 138 will query existing metadata from an internal data store that associates media locations with pre-made streaming metadata. *Id.* at 6:12–23. In one implementation, metadata required for streaming a particular media file is dynamically created depending, for example, on the file extension of the requested rich media file, the URL or any other portion thereof. *Id.* at 3:46–50. Providing a metafile may require retrieving information about the configuration of at least one of the following: the version or type of a streaming product or the location of media files, the load of the servers, the load of the network, the location of the client, and the agreed quality of service. *Id.* at 3:55–59.

In both the retrieving and generating scenarios, the resulting streaming

metadata is returned to the HTTP protocol handler 132 (arrow 158). *Id.* at 6:18–20.

The HTTP protocol handler 132 builds a HTTP response that contains the streaming metadata and a MIME-type¹ suitable for streaming, then returns the HTTP response to the network interface 134 (arrow 160). *Id.* at 6:30–33. The network interface 134 transfers the HTTP response to the network interface 124 on the web client 102 that initiated the request (arrow 162). *Id.* at 6:34–36. The network interface then returns the HTTP response to the requesting web browser 122 (arrow 164). *Id.* at 6:37–38. Web browser 122 analyzes the MIME-type in the HTTP response and selects a suitable multimedia player 126 based on this information. *Id.* at 6:39–41. In response, the multimedia player 126 analyzes the streaming data and extracts all relevant information, including which streaming server to contact, which streaming protocol to use, and which file to stream. *Id.* at 6:44–47.

The multimedia player 126 then composes a streaming protocol request, which arrives at network interface 146.² *Id.* at 6:52–54. The network interface 146

¹ The acronym “MIME” is defined as “Multipurpose Internet Mail Extensions” and, as described by the ’553 Patent, “allows the browser to determinate the type of data it is currently receiving from the server.” ’553 Patent (EX1001), 2:6–10.

² This arrives via network interface 124 (arrow 168), which sends the streaming protocol request to the network interface 146 (arrow 170). ’553 Patent (EX1001),

forwards the streaming protocol request to the streaming server 144 (arrow 172), which then analyses the streaming protocol request, and checks the availability and accessibility of the media files requested. *Id.* at 6:55–59. Depending on whether or not the checks are passed, streaming server 144 will either return a streaming protocol response indicating the media file cannot be streamed or a positive reply. *Id.* at 6:59–62. In the positive reply scenario, the streaming server 144 will send data packets to the network interface 146 (arrow 174), which transfers the packets to the network interface 124 of the web client 102 (arrow 176), which then forwards the packets to multimedia player 126 (arrow 178). *Id.* at 6:63–7:4. Finally, the multimedia layer 126 receives the real-time packets and renders their content as they arrive. *Id.* at 7:5–6.

Challenged claim 1 is representative and corresponds to aspects of the disclosure summarized above:

1. A method for streaming a media file over a distributed information system to a client computer running a browser application, the method comprising the steps of:

receiving a request for a particular media file from a client computer,

6:50–54.

providing a metafile, wherein said metafile contains information about the identification, location and format of the media file,

returning said metafile back to said client computer,

characterized in that

the step of receiving a request for a particular media file from a client computer comprises the steps of:

intercepting a download request for the actual media file and

reinterpreting said download request into a request for receiving a corresponding metafile.

However, as demonstrated below, the limitations recited in challenged claim 1 were well-known prior to the October 2002 priority date of the '553 Patent. For example, *Lahr*, which is detailed below, explicitly disclosed “intercepting” media resource requests, rewriting responses to those requests, and returning metadata to a requesting client. *See Lahr* (EX1003), Abstract. Thus, as analyzed below, and as supported by the declaration of Dr. Houh, the combined teachings of the prior art references presented in this Petition render obvious the challenged claims.

B. Prosecution History

The '553 Patent issued from US Patent Application 10/624,353 (“’353 Application”), filed July 22, 2003. *See* '553 Patent (EX1001), field (22).

The challenged claims remained substantively similar throughout

prosecution, with only minor amendments made to the independent claims in the applicant's responses. Throughout prosecution, claims 1-4, 6-14, and 16-17 were rejected as anticipated by US Patent Application Publication US2003/0236912 A1 to Klemets et al. ("Klemets"). '553 Patent PH (EX1002), pp. 69–74, 140–143.

During prosecution, the dispute between the applicant and the examiner centered on the first limitation of claim 1: "receiving a request for a particular media file from a client computer" and whether the examiner's cited reference, Klemets, disclosed this limitation. *See, e.g.* '553 Patent PH (EX1002), p. 145. After a non-final and final Office Action from the examiner and corresponding responses from the applicant, the applicant appealed the rejection to the Board of Patent Appeals and Interferences. *Id.* at pp. 181–213.

In its Appeal Brief, the applicant argued that claims 1 and 11 "require that a request for a particular media file is received from a client computer, and a metafile is returned to the client computer." *Id.* at p. 196. As the applicant stated: "The present invention defined by claims 1 and 11 allows static or active web pages, for example, to reference the media files directly instead of referencing an active page that is parameterized to target the media file." *Id.* at p. 197. Thus, a request for a media file is received, but instead of returning the content of the resource requested or executing the resource and forwarding its reply, a metafile is returned. *Id.*

The applicant argued that Klemets' alleged request was merely a request to

describe available content (i.e., not a request for a particular media resource) and did not involve the steps of intercepting a download request for the actual media file or reinterpreting the download request into a request for receiving a corresponding metafile as further required by each of independent claims 1 and 11. *Id.* at pp. 198–99.

In the examiner’s answer, the examiner alleged the phrases “receiving a request for a particular media file from a client computer” or “intercepting a download request for the actual media file” did not necessarily mean that the request is to download the particular media file. *Id.* at p. 222. Rather, the examiner contended requests with regard or respect to a particular media file were also within the scope of the claims, not just requests to download the media file. *Id.*

In its reply brief, the applicant insisted that the request for a particular media file of claims 1 and 11 must be a download request for the actual media file. *Id.* at p. 233. According to the applicant, the claim phrase required “a request *to acquire, or download*, the actual media file” and thus more than just a request “to describe the available content.” *Id.* at p. 234. The applicant argued the examiner’s interpretation relied on the “Background of the Invention,” whereas the specification refers to “requests to stream a media file.” *Id.* Based on this argument, the applicant argued that the examiner’s interpretation was unreasonably broad, while its interpretation of the limitation (i.e., the request is to acquire, or download, the actual

media file) was consistent both with the description of the invention in the specification and the plain meaning. *Id.*

In its decision on appeal, the Board of Patent Appeals and Interferences agreed with the applicant. *Id.* at p. 251. According to the Board, viewing the disputed request limitation in light of the later limitation of “reinterpreting said download request into a request for receiving a corresponding metafile,” it was “clear that the ‘download request for the actual media file’” was a request to download the actual media file rather than a request to download information with regard to or with respect to the actual media file. *Id.*

On remand, a notice of allowance issued. *Id.* at p. 254. The examiner reasoned each of claims 1 and 11 required: “that a client computer requests a ‘particular media file,’ such as by URL, thus allowing the media file to be referenced directly. This request is then reinterpreted, or converted, to a request for downloading a metafile that corresponds to the requested media file, where the metafile is downloaded instead of the media file.” *Id.* at p. 260.

As shown below, *Lahr* and *Day* teach receiving and reinterpreting requests for an actual media file, consistent with the applicant and Board’s interpretation of the claims.

C. Level of Ordinary Skill in the Art

A person of ordinary skill in the art at the priority date (October 18, 2002) for

the '553 Patent ("POSITA") would have had a bachelor's degree in electrical or computer engineering, or a closely related scientific field such as computer science, and two years of work experience with content delivery techniques over distributed networks (e.g., streaming media over the Internet). A lack of experience can be remedied with additional education (e.g., a Master's degree), and likewise, a lack of education can be remedied with additional work experience (e.g., 4-5 years). Houh (EX1007), ¶¶ 52–56.

V. CLAIM CONSTRUCTION

The Challenged Claims of the '553 Patent are construed "using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b)." 37 C.F.R. § 42.100(b) (Nov. 13, 2018). The claim terms below are thus construed "in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent." *Id.* Petitioner submits that no claim term requires construction beyond their plain and ordinary meaning.

VI. CLAIMS 1, 4, 6, 8, 11, AND 13 ARE UNPATENTABLE

A. Ground 1: Claims 1, 4, 6, 8, 11, and 13 are rendered obvious by the combined teachings of *Lahr* and *Lewis*

1. Overview of *Lahr*

Lahr discloses a “distributed network which is capable of dynamically changing media resource request metafiles, as well as the responses to those media resource requests by media servers in the network, to provide more efficient content delivery in the network.” *Lahr* (EX1003), Abstract. The method of *Lahr* includes “intercepting a media resource request metafile client request, or a response to the media resource request by a media server in the network, and intelligently rewriting the response before sending it back to the requesting client.” *Id.*

Lahr’s Figure 11 and the associated description teach most of the limitations of the challenged claims. *Lahr* describes Figure 11 as illustrating “the conventional utilization of metafiles in a network and the preferred embodiment of the present invention wherein the metafile is rewritten.” *Lahr* (EX1003), 16:52–54.

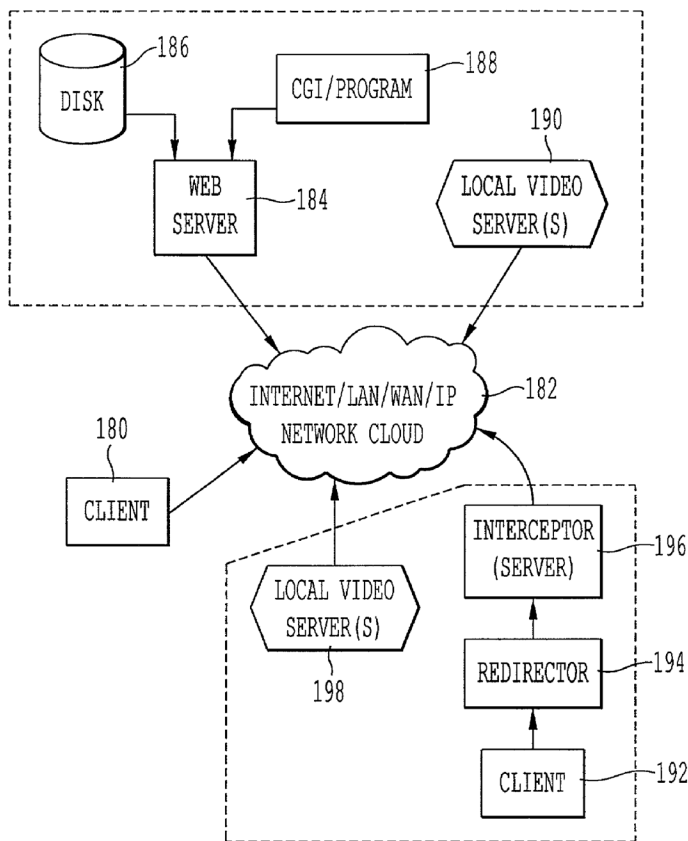


FIG. 11

In describing Figure 11, *Lahr* states that the “client 192 **requests a generic metafile/media.**” *Id.* at 16:65–67. Client 192 is depicted above in Figure 11. *Lahr* continues and states the client’s “request is received by a redirector 194” also shown above. *Id.* at 16:67. The “redirector 194...redirects the request to an interceptor (server) 196.” *Id.* at 16:67–17:2. This is done “under the control of the director” which *Lahr* describes as “an intelligent agent that...redirects users to the optimal server.” *Id.* at 15:15–17.

After the redirector redirects the request to the interceptor, the “interceptor

requests the metafile or media resource from the centralized web or other media server 198 via the network cloud 182” and subsequently, the “media server 198...transmits the metafile or protocol response back to the client 192.” *Id.* at 17:2–10. *Lahr* contemplates that the “redirector 194 and interceptor 196 can be the same component.” *Id.* at 17:17–19. *Lahr* also specifies that “before the metafile or protocol response is delivered to the client 192, the redirector 194...analyzes the information contained in the metafile and changes it” for example, by changing links pointing to one server to point to a different server. *Id.* at 17:10–16. Thus, just like the ’553 Patent, *Lahr* receives a request for a media file, and returns in response a metafile. *See also* Houh (EX1007), ¶¶ 66–73.

Lahr is analogous art. Houh (EX1007), ¶¶ 74–75. The ’553 Patent “generally relates to transfer of digital information” and more specifically, “relates to a method...for streaming a media file over a distributed information system, such as the Internet, to a client computer running a browser application.” ’553 Patent (EX1001), 1:7-12. Thus, the field of endeavor of the ’553 Patent is media delivery over the Internet. *Lahr* seeks “to [] improve content delivery in the network” and thus is within the field of endeavor of the ’553 Patent. *Lahr* (EX1003), 1:51–63. *Lahr* is also reasonably pertinent to at least one problem addressed by the ’553 Patent of providing metafiles in response to requests for media content, as *Lahr* explicitly discloses a process by which requests for media are responded to with metafiles. *See*

Lahr (EX1003), 16:65–17:15.

2. Overview of *Lewis*

Lewis discloses a “technique for optimizing delivery of specialized content files such as multimedia files in a computer network.” *Lewis* (EX1004), Abstract. As pertinent to the analysis below, *Lewis* describes a process in which a “media redirection file (MRF)” is provided “to the user’s browser program” and it details the contents of such an MRF file. *Id.* at 4:26–33; Houh (EX1007), ¶¶ 77–78.

Lewis is analogous art. As detailed above, the ’553 Patent’s field of endeavor is media delivery over the Internet. *Lewis* discloses a technique for delivering “multimedia files in a computer network” (*Lewis* (EX1004), Abstract) and is thus within the same field of endeavor as the ’553 Patent. Houh (EX1007), ¶ 79. *Lewis* is also reasonably pertinent to at least one problem addressed by the ’553 Patent of providing metafiles to web browsers, as *Lewis* discloses that it was known in the art to provide metafiles to requesting web browsers. *See Lewis* (EX1004), 11:3–16; Houh (EX1007), ¶ 80.

3. Analysis

Claim 1

[1.0] A method for streaming a media file over a distributed information system to a client computer running a browser application, the method comprising the steps of:

The preamble is not a limitation, because the body of the claim does not rely on any portion of the preamble for antecedent basis or structure. For example, while the preamble recites *streaming a media file over a distributed information system*, limitation [1.1] re-introduces *a particular media file* and the claim does not later recite a *distributed information system*. Thus, the recitation of *streaming a media file over a distributed information system* in the preamble is not limiting.

Likewise, while the preamble recites *a client computer running a browser application*, limitation [1.1] also recites *a client computer* and the body of the claim does not recite a *browser application* and thus, the recitation of *a client computer running a browser application* in the preamble is also not a limitation. *See Shoes by Firebug v. Stride Rite Children's Group*, 962 F.3d 1362, 1367–68 (Fed. Cir. 2020) (reintroducing claim term in body of claim indicates preamble is not a limitation).

To the extent the preamble is limiting, *Lahr* discloses it, or at least renders it obvious.³ First, *Lahr* discloses *streaming a media file over a distributed information system*. *Lahr* discloses that its “invention relates to a **distributed network** which is capable of dynamically changing media resource request metafiles, as well as the

³ Where, as here the preamble does not provide antecedent basis for any claim term, it is generally considered to not be a limitation. *See Pacing Techs., LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1023–24 (Fed. Cir. 2015).

responses to those media resource requests by media servers in the network, to provide more efficient **content delivery** in the network.” *Lahr* (EX1003), 1:51–55. *Lahr* further discloses that “the Internet” (a *distributed information system*) “can be used to transmit multimedia data, such as **streaming audio and video data**, from content providers to end users....” *Id.* at 1:67–2:3; *see also* ’553 Patent (EX1001), 1:7–12 (“a distributed information system, such as the Internet....”). Thus, *Lahr* discloses *streaming a media file* (i.e., audio and video data) *over a distributed information system* (the Internet). Houh (EX1007), ¶ 82.

Second, *Lahr* discloses *streaming to a client computer running a browser application*. As detailed in the preceding quote, *Lahr* discusses streaming audio and video data to end users “such as businesses, small or home offices, and individuals.” *Lahr* (EX1003), 1:67–2:3. In Figure 5D, *Lahr* depicts various playback devices, including computers, and notes that playback devices may use “browsers” to render the media:

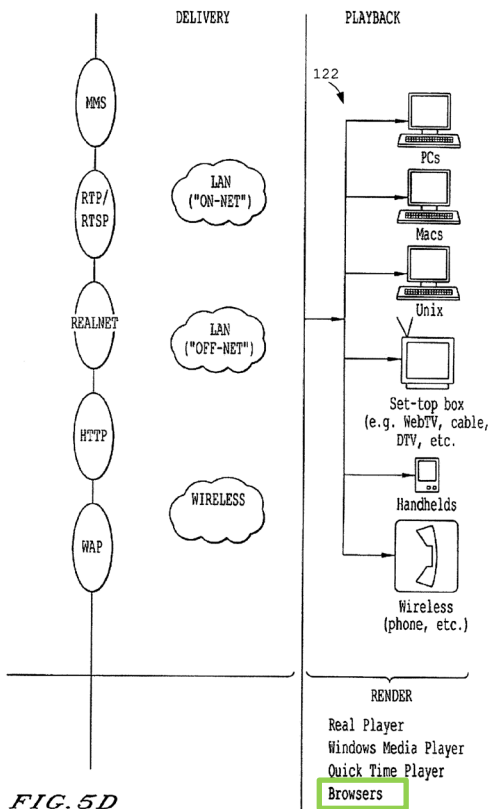


FIG. 5D

Id., Fig. 5D (annotated), *see also id.* at 3:57–62 (“client’s...browser type...”); Houh (EX1007), ¶¶ 83–84 (noting that it was well-known that a client computer would run a browser application and citing, *inter alia*, Lewis (EX1004) 8:30–9:2 (“clients 40 run software...such as Web browsers...”)).

Thus, *Lahr* discloses, or at least renders obvious, *streaming ... to a client computer running a browser application*. Houh (EX1007), ¶¶ 81–85.

Lahr thus discloses, or at least renders obvious, the preamble of claim 1.

[1.1] receiving a request for a particular media file from a client computer;

Lahr discloses, or at least renders obvious, this limitation. Specifically, *Lahr*

discloses a “redirector” receiving a request for a media resource (i.e., *a request for a particular media file*) from a user’s client computer, such as a PC or workstation (i.e., *from a client computer*).

Lahr is titled “A system and method for rewriting a **media resource request** and/or response between origin server and client,” and it explains that its system has “the ability to intercept a metafile **or media resource client request**, or a metafile or specific server protocol response, and intelligently re-write the response.” *Lahr* (EX1003), Title, 22:38–43.

Lahr illustrates, in Figure 11, “both the conventional utilization of metafiles in a network and the preferred embodiment of the present invention wherein the metafile is rewritten.” *Lahr* (EX1003), 16:52–61. In the “conventional utilization,” *Lahr* explains that a “**client 180** (e.g., a user 20) **requests a generic metafile/media resource.**” *Id.* Similarly, in *Lahr*’s invention, “a **client 192 requests a generic metafile/media [resource]**” and “**the request is received** by a redirector 194 which, under control of the director as described above, redirects the request to an interceptor (server) 196.” *Id.* at 16:65–17:2; Houh (EX1007), ¶¶ 87–88.⁴

⁴ Because *Lahr* uses the word “user” interchangeably with “client” and “user devices 20” and *Lahr* describes user devices as including “PCs, workstations” and other computing devices, a POSITA would have appreciated that the request received at

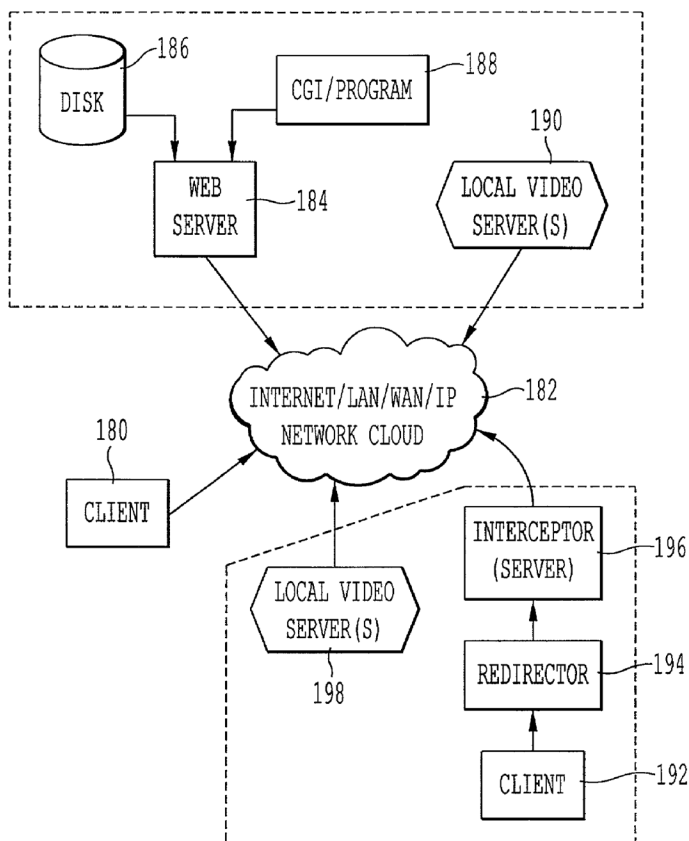


FIG. 11

Lahr also describes that “media resource requests are performed in many ways by a client (e.g., an end user), such as ... by a simple hyper text transfer protocol (HTTP) request.” *Id.* at 3:1–4; Houh (EX1007), ¶ 89.

Lahr’s disclosure is consistent with the BPAI’s interpretation of the phrase *request for a particular media file* because *Lahr* explicitly acknowledges that the

the redirector is from the user’s *client computer* or at least would have found the same to be obvious. *See Lahr* (EX1003), 9:11–21; Houh (EX1007), ¶ 87.

user may request the actual “media resource” (i.e., an actual media file as the Board stated) and not simply “information with regard to or with respect to the actual media file.” See Houh (EX1007), ¶¶ 87–90; ’553 PH (EX1002), p. 251. Thus, *Lahr* describes a client requesting a media resource, or *particular media file*, and that such a request is *receiv[ed]*. Houh (EX1007), ¶¶ 87–90 (citing ’553 Patent (EX1001), 5:57–6:6 as equating *media file* with a media resource); see also *Lahr* (EX1003), Abstract (“media resource requests”); 3:1–5 (“media resource requests are performed in many ways by a client (e.g., an end user), such as ... a simple hyper text transfer protocol (HTTP) request.”); 3:7–10 (“sending links to a resource”). Further, *Lahr*’s disclosure is consistent with the Patent Owner’s requirement that the request is a “request to *acquire, or download*, the actual media file” and more than a request “to describe the available content.” ’553 PH (EX1002), p. 234.

Accordingly, by describing a client request for a media resource being received by a redirector, *Lahr* discloses, or at least renders obvious, *receiving a request for a particular media file from a client computer*. Houh (EX1007), ¶¶ 86–91.

[1.2] providing a metafile, wherein said metafile contains information about the identification, location and format of the media file,

Lahr in view of *Lewis* renders obvious this limitation. Specifically, *Lahr* discloses the interceptor/redirector requesting and obtaining a metafile provided by

a web server (i.e., *providing a metafile*), and *Lewis* discloses the contents of a *metafile*, including *information about the identification, location and format of the media file*.

After the request is received at the redirector, as detailed in limitation [1.1], *Lahr* discloses:

The **interceptor requests the metafile** or media resource **from the centralized web or other media server 198** via the network cloud 182. The centralized web server 184 or other media server 198, **receives either the statically generated metafile** from the file storage disk 186 **or the dynamically generated metafile** from the CGI/program 188....However, before **the metafile** or protocol response **is delivered** to the client 192, the redirector, under control of the director, analyzes the information contained in the metafile and changes it accordingly. For example, the metafile may be rewritten to change the links pointing to local server 190 to point to a different local server 198.

Lahr (EX1003), 17:2–16; *see also* '553 Patent (EX1001), 5:65–6:6 (“the HTTP protocol handler 132 according to the present invention reinterprets the HTTP request so that it returns streaming media instead. In order to do so, **the HTTP protocol handler 132 requests metadata for the requested media resource** either from the metadata generator 136 or from the metadata query component 138 (arrow 156)....”); Houh (EX1007), ¶ 93.

Lahr contemplates that the “redirector 194 and interceptor 196 can be the

same component.” *Lahr* (EX1003), 17:17–19. Thus, for the purposes of this mapping, references to the “redirector” and “interceptor” are understood to be referring to the same component. Houh (EX1007), ¶ 94. By describing that the interceptor requests the metafile, and that the metafile is rewritten by the redirector, *Lahr* discloses, or at least renders obvious, *providing a metafile*. For the redirector to rewrite the metafile, the redirector must obtain the metafile—that is, the metafile must be *provid[ed]* to the redirector. Houh (EX1007), ¶ 95. This is no more than the typical request-response paradigm common in computing systems. *Id.*

Lahr further discloses, or at least suggests, that the *metafile contains information about the ... location ... of the media file* as it discloses rewriting the metafile to “change the links pointing to local server 190 to point to a different local server 198.” *Lahr* (EX1003), 17:13–15. A POSITA would have appreciated that the links pointing to a “different local server” is a *location* of the media file, for example, an Internet Protocol address or URL corresponding to the media file. Houh (EX1007), ¶ 97 (citing, e.g., *Lahr* (EX1003), 11:36–39 (embodiment of *Lahr* describing “IP address and port of the...media server from which the stream can be pulled”, i.e., the *location* of the stream)). *Lahr* further discloses that “the director will provide a metatag file to the requesting user 20 which will enable the user 20 **to link to the appropriate server** at the master data center 18 from which the user 20 can receive the requested video clip.” *Lahr* (EX1003), 14:51–56. This provides

further evidence that *Lahr*'s metafile includes *information about the ... location ... of the metafile*, as a POSITA would have recognized from *Lahr*'s description that the location provides the address for the "appropriate server" from which the video clip could be obtained. Houh (EX1007), ¶¶ 98–99.

However, to the extent *Lahr* does not explicitly disclose that the *metafile contains information about the ... location ... of the media file*, this limitation would have been well-known in the art at the time of the '553 Patent. For example, a POSITA would have recognized that, in a streaming media system such as that of *Lahr*, a client device must receive at least the *location* of a requested media file so that the client device may obtain the media file for rendering. Houh (EX1007), ¶¶ 100–101 (citing, e.g., Rosser (EX1008), p. 2 ("The server responds by sending the user a 'metafile' that contains the location of the streamed content.")).

Additionally, *Lahr* in view of *Lewis* teaches that the metafile would have provided the *location* of the media file, the *identification* of the media file (so that the client device could ensure it was receiving the correct media file), and the *format* of the media file (so that the client device could execute the correct rendering application, such as RealPlayer, Windows Media Player, etc.). Houh (EX1007), ¶ 102. *Lewis* discloses that, in response to a request for media from a web browser, a web server provides the web browser with a media redirection file that contains instructions about the media file, including the location, format, and identification

of the requested media file:

As is known in the art, when one of the users of the client computers 42, 52 requests a media stream such as a video clip of a presidential news conference from a site such as www.cnn.com, the browser 54 makes a request for the media stream in the form of a file request using the hypertext transfer protocol (HTTP) for a media redirection file (MRF) from the Web server 12. **The Web server 12 sends the MRF file down to the browser 54. The MRF file itself contains additional instructions for the type of media player 56 that is required to view the video clip, as well as instructions for where to locate the media stream itself.** The requested media file may be a recorded clip or a live stream.

Lewis (EX1004), 11:3–16.

Lewis further discloses:

For example, turning attention to Fig. 2, there is shown one type of MRF file known as an Active Streaming Format (ASF) file formatted for a Microsoft Media Technologies type environment. As can be seen, the MRF file ... is a text file that contains tag portions. One of the tags contains an `<href>` type reference to a media file which can be obtained by using the "mms" protocol at the URL `//wmt . streamvision.com/msns/clinton.28. asf` . The `<href>` reference indicates that **the desired streaming video file of President Clinton's news conference is in the ASF format and can be obtained at the indicated uniform resource locator (URL).** In the prior art, the MRF file is returned directly to the browser 54 which in turn causes the browser 54 to open

the media player 56 program such as the associated Microsoft Media Player program at the user node 42, 52. The media player 56 then obtains the streaming media file indicated by the MRF file from the media server 14 by submitting another file request over the Internet 20. The streaming media file is then sent from the media server 14 to the media player 56.

Id. at 11:17–29.

Lewis depicts this MRF file in Figure 2:

Here is a sample asx file; notice the redirection

```
<ASX VERSION="3">
<Title>Video 17Kbps/Audio 5Kbps</TITLE>
<AUTHOR>Microsoft Windows Media Technologies</AUTHOR>
<ABSTRACT>30fps Streaming Video!</ABSTRACT>

<ENTRY>

  <ref href="mms://wmt.streamvision.com/msns/Clinton28.asf" />
  <TITLE>Press Conference</TITLE>
  <AUTHOR>Video Courtesy of CNN</AUTHOR>
  <COPYRIGHT>? 1998 Cable News Network, Inc.</COPYRIGHT>
  <MOREINFO href="http://www.cnn.com" />
  <ABSTRACT>President Clinton Press Conference</ABSTRACT>

</ENTRY>

</ASX>
```

FIG. 2

In the example MRF file of *Lewis*' Figure 2, the *location* of the media file corresponds to the uniform resource locator, or URL, contained in the "ref" tag, i.e.,

mms://wmt.streamvision.com/msns/Clinton28.asf. The *identification* of the media file corresponds to the information contained in the “TITLE” and/or “ABSTRACT” tags, i.e., “Press Conference” and/or “President Clinton Press Conference.” Finally, the *format* of the media file corresponds to the “.asf” portion of the URL. Houh (EX1007), ¶¶ 103–106 (citing, e.g., Microsoft Comp. Dictionary (EX1012), pp. 36 (“ASF”), 21 (“Advanced Streaming Format”)).

Based on the above disclosure, a POSITA would have recognized that the “MRF file” disclosed by *Lewis* is a *metafile*. Houh (EX1007), ¶¶ 107–108. This is based on well-known definitions in the art. For example, a computer dictionary defines a “metafile” as a “file that contains or defines other files” and defines “metadata” as “[d]ata about data.” Microsoft Comp. Dictionary (EX1012), p. 336. Consistent with these definitions, *Lewis*’ MRF file is data (e.g., location, title, type of media player, author, etc.) about the video data. *Lewis* therefore teaches a *metafile* that *contains information about the identification, location and format of the media file*. Houh (EX1007), ¶¶ 107–108.

A POSITA would have been motivated to combine the teachings of *Lahr* and *Lewis*. The combined teachings would have been no more than the combination of prior art elements according to known methods to yield predictable results. Houh (EX1007), ¶ 109. For example, the combination is no more than *Lahr*’s teaching of a system that provides metafiles with *Lewis*’ more specific teaching of the contents

of a metafile, which would have resulted in *Lahr*'s system providing metafiles with the contents specified by *Lewis*. A POSITA would have been motivated to do so to provide *Lahr*'s client device with the ability to launch “the type of media player [] that is required to view the video clip” and to “locate the media stream itself” from the “indicated uniform resource locator” as taught by *Lewis*. *Lewis* (EX1004), 11:3–16; Houh (EX1007), ¶¶ 110–111. This would have been consistent with contemporaneous literature, such as Rosser, which explains that a “metafile” contains the location of the streamed content and that, “[o]nce the metafile is received, the user’s streaming player software will be launched automatically, and the player sends a request for content to the server designated in the metafile.” Houh (EX1007), ¶ 111 (citing Rosser (EX1008), p. 2). This would have been a predictable result, as it would have provided a client device with a metafile with data that was known to be contained in metafiles, consistent with the knowledge of a POSITA. Additionally, a POSITA would have had a reasonable expectation of success in combining these teachings, at least because a POSITA would have recognized that combining the teachings as proposed would have required no more than specifying additional data to be included in *Lahr*'s metafiles, as taught by *Lewis*. Houh (EX1007), ¶ 112. Thus, for at least this reason, a POSITA would have been motivated to combine the teachings of *Lahr* and *Lewis*.

The combined teachings of *Lahr* and *Lewis* render obvious *providing a*

metafile, wherein said metafile contains information about the identification, location and format of the media file as recited. Houh (EX1007), ¶¶ 92–113.

[1.3] returning said metafile back to said client computer,

Lahr discloses, or at least renders obvious, this limitation because it describes delivering the metafile to the client computer. Specifically, as detailed above, *Lahr* discloses that “the metafile...is delivered to the client 192.” *Lahr* (EX1003), 17:2–16. Further, *Lahr* discloses in the background section that “media resource requests are performed in many ways by a client” and that “[m]eta files are the typical response for a media request.” *Id.* at 3:1–5.

Thus, *Lahr* discloses *returning said metafile back to said client computer* as recited. Houh (EX1007), ¶¶ 114–116.

[1.4.1] characterized in that the step of receiving a request for a particular media file from a client computer comprises the steps of: intercepting a download request for the actual media file and

Lahr discloses, or at least renders obvious, this limitation, because in response to receiving the request for the media file, *Lahr*’s interceptor receives the request and returns a metafile.

Specifically, as detailed above, *Lahr* is titled “A system and method for

rewriting a **media resource request** and/or response between origin server and client,” and it explains that its system has “the ability to intercept a metafile **or media resource client request**, or a metafile or specific server protocol response, and intelligently re-write the response.” *Lahr* (EX1003), Title, 22:38–43. *Lahr* discloses that “according to an embodiment of the present invention, when a **client 192 requests a generic metafile/media**, the request is received by a redirector 194 which, under control of the director as described above, **redirects the request to an interceptor (server) 196.**” *Lahr* (EX1003), 16:65–17:2); *see also* at Abstract (“media resource requests”); 3:1–5 (“media resource requests are performed in many ways by a client (e.g., an end user), such as ... a simple hyper text transfer protocol (HTTP) request.”); 3:7–10 (“sending links to a resource”). Thus, *Lahr* discloses *a request for a particular media file* as recited, and as detailed above with respect to limitation [1.1]. *Lahr* explains that this redirection and intercepting contrasts with the conventional method, where such a request is transmitted “to a centralized web server.” *Id.* at 16:52–61.

Thus, *Lahr* discloses *intercepting a download request for the actual media file* because the client’s request for media is received by the redirector and then redirected to the interceptor, instead of being transmitted to the centralized web server. Houh (EX1007), ¶¶ 117–120.

[1.4.2] reinterpreting said download request into a request for receiving a corresponding metafile.

Lahr discloses, or at least renders obvious, this limitation.

As disclosed in *Lahr*, **“before the metafile or protocol response is delivered to the client 192, the redirector 194, under control of the director, analyzes the information contained in the metafile and changes it accordingly.** For example, the metafile may be rewritten to change the links pointing to local server 190 to point to a different local server 198.” *Lahr* (EX1003), 17:10–16; *see also* cl. 11 (“intercepting and modifying a data resource request issued by a user requesting data from said network prior to said data resource request being advanced...”); 3:4–5 (“Metafiles are the typical response for a media request.”).

This operation corresponds to, and thus discloses, *reinterpreting said download request into a request for receiving a corresponding metafile* because, in lieu of providing a media file in response to the user’s request for the media, *Lahr* provides a metafile with rewritten links. Houh (EX1007), ¶¶ 122–124. This is consistent with the ’553 Patent, which explains that, in its invention, “the server intercepts a download request for the actual media file and reinterprets the download request into a request for receiving a corresponding metafile. Thus, **instead of returning the requested media file, a metafile is returned that allows immediate streaming of the requested media file without the need of waiting for the**

download to be finished.” ’553 Patent (EX1001), 3:29–45; Abstract; Houh (EX1007), ¶¶ 122–124. In *Lahr*, the “metafile...is delivered to the client 192” instead of returning the “media resource” that was requested as discussed in limitation [1.1], and thus, *Lahr* discloses, or at least renders obvious, this limitation.

Accordingly, the combined teachings of *Lahr* and *Lewis* render obvious every limitation of claim 1.

Claim 4

[4.1] The method according to claim 1, wherein the step of providing a metafile comprises one of the steps of: dynamically generating a metafile, and statically querying a metafile from a data store.

Lahr discloses this limitation: “The interceptor requests the metafile...from the centralized web or other media server 198....The centralized web server 184 or other media server 198, receives either the **statically generated metafile** from the file storage disk 186 **or the dynamically generated metafile** from the CGI/program 188, and transmits the metafile or protocol response back to the client 192 via the network cloud 182.” *Lahr* (EX1003), 17:2–9. Thus, as part of the interceptor *providing a metafile* as described with reference to limitation [1.2], *supra*, the metafile is either dynamically generated or statically generated. Houh (EX1007), ¶¶ 127–128.

Thus, *Lahr* discloses both *dynamically generating a metafile* as well as

statically querying a metafile from a data store (the “file storage disk 186.”). Houh (EX1007), ¶¶ 127–129.

Claim 6

[6.1] The method according to claim 1, wherein the step of providing a metafile further includes the step of retrieving information about the configuration of at least one item chosen from the group comprising: version of the streaming product, type of the streaming product, location of the media file, load of the servers, load of the network, location of the client, quality of service.

Lahr discloses this limitation. *Lahr* describes that “the operations of the director, redirector 194 and interceptor 196 enable the request and the response to be rewritten according to **localized data such as network topology local server availability.**” *Lahr* (EX1003), 17:34–38. *Lahr* further describes that “server choice is based on network performance and where the content is located, along with CPU load, application status, and other factors.” *Id.* at 15:20–22.

Because *Lahr* explains that the metafile may be rewritten to “point to a different local server 198” (*Lahr* (EX1003), 17:2–16), and that such a determination may be based on “CPU load,” a POSITA would have recognized that the CPU load information must be *retriev[ed]* so that the metafile may be rewritten according to the information. Houh (EX1007), ¶¶ 132–133.

The above excerpt of regarding pointing to a different local server (i.e., *Lahr* (EX1003), 17:2–16) also discloses *retrieving information about the ... location of the media file* as a POSITA would have recognized “a different local server 198” to be correspond to a *location of the media file* and that such information would be *retriev[ed]* so that the metafile may include the location information. Houh (EX1007), ¶ 134.

Thus, *Lahr* teaches that *providing a metafile further includes the step of retrieving information about the configuration of at least one item chosen from the group comprising: ...location of the media file and load of the servers* as recited. Houh (EX1007), ¶¶ 130–135.

Claim 8

[8.0] A computer-readable program stored on a non-transitory computer-readable medium, said computer readable program being configured to perform the steps of:

For the same reasons as detailed above with respect to claim 1, the preamble of claim 8 is not a limitation. To the extent the preamble is limiting, *Lahr* discloses it, as it describes, for example, that the “redirector 194 and interceptor 196 can be the same component,” the “interceptor 196 can be implemented in software”, and that the interceptor may include “software components.” *Lahr* (EX1003), 17:27–

34; *see also supra* Claim 1 (preamble presumed not limiting). A POSITA would have recognized software (i.e., a *computer-readable program*) as disclosed by *Lahr* to be *stored on a non-transitory computer-readable medium* for example, a hard disk drive, so that the software may be executed by appropriate hardware (e.g., a processing device). Houh (EX1007), ¶ 138 (citing Microsoft Comp. Dictionary (EX1012) definitions of “computer-readable”, “CPU”, and “execute”). Thus, *Lahr* discloses, or at least renders obvious, a *computer-readable program stored on a non-transitory computer-readable medium* as recited. Houh (EX1007), ¶¶ 136–139.

[8.1] receiving a request for a particular media file from a client computer;

See limitation [1.1], *supra*. As detailed above in the analysis of limitation [1.1], the request is received by a “redirector 194.” *Lahr* (EX1003), 16:65–17:2. *Lahr* contemplates that “the redirector 194 and interceptor 196 can be the same component.” *Id.* at 17:16–18. Thus, *Lahr* discloses this limitation. Houh (EX1007), ¶¶ 140–142.

[8.2] providing a metafile, wherein said metafile contains information about the identification, location and format of the media file,

The combined teachings of *Lahr* and *Lewis* render obvious this limitation for the same reasons discussed above regarding limitation [1.2]. Further, as detailed in the analysis of limitation [1.2], the combined teachings of *Lahr* and *Lewis* render

obvious that the redirector is *provid[ed] a metafile* as recited. Houh (EX1007), ¶ 143.

[8.3] returning said metafile back to said client computer,

Lahr discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [1.3]. Further, as detailed in the analysis of limitation [1.3], *Lahr* discloses that the redirector delivers the metafile to the client. See *Lahr* (EX1003), 17:2–16; Houh (EX1007), ¶ 144.

[8.4.1] characterized in that the step of receiving a request for a particular media file from a client computer comprises the steps of: intercepting a download request for the actual media file and

Lahr discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [1.4.1]. Houh (EX1007), ¶ 145.

[8.4.2] reinterpreting said download request into a request for receiving a corresponding metafile.

Lahr discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [1.4.2]. Houh (EX1007), ¶ 146.

Claim 11

[11.1] The computer-readable program of claim 8, wherein the step of providing a metafile comprises one of the steps of: dynamically generating a metafile, and statically querying a metafile from a data store.

Lahr discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [4.1]. *Houh* (EX1007), ¶ 147.

Claim 13

[13.1] The computer readable program of claim 8, wherein the step of providing a metafile further includes the step of retrieving information about the configuration of at least one item chosen from the group comprising: version of the streaming product, type of the streaming product, location of the media file, load of the servers, load of the network, location of the client, quality of service.

Lahr discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [6.1]. *Houh* (EX1007), ¶ 148.

B. Ground 2: Claims 1, 4, 8, and 11 are rendered obvious by *Day* in view of *Nakayama*

1. Overview of *Day*

Day discloses a method and multimedia server for “delivering and effecting the presentation of multimedia files to [a] client.” *Day* (EX1005), Abstract. In one pertinent aspect, *Day* describes that a client may select a multimedia asset from an “HTML page” and that the client receives, in response an “HTML metafile ...

containing the pertinent information regarding the selected asset.” *Day* (EX1005), 5:30–52; Houh (EX1007), ¶¶ 151–152.

Day is analogous art. The ’553 Patent “generally relates to transfer of digital information” and more specifically, “relates to a method...for streaming a media file over a distributed information system, such as the Internet, to a client computer running a browser application.” ’553 Patent (EX1001), 1:7-12. Thus, the field of endeavor of the ’553 Patent is media delivery over the Internet. *Day* is related to delivering “multimedia files” to “network clients” and discloses that networks include the Internet. *Day* (EX1005), 2:28–52, 1:33–42. Thus, *Day* is within the field of endeavor of the ’553 Patent. Houh (EX1007), ¶ 153. *Day* is also reasonably pertinent to at least one problem addressed by the ’553 Patent of providing metafiles in response to requests for media content, as *Day* explicitly discloses a process by which requests for media are responded to with metafiles. *See Day* (EX1005), 5:30–52; Houh (EX1007), ¶ 154.

2. Overview of *Nakayama*

Nakayama generally relates to a “server program for handling information delivered through a network.” *Nakayama* (EX1006), 1:14–23. *Nakayama* describes, in one configuration, a server computer that delivers streaming content to a local computer. *See generally Nakayama* (EX1006), 3:19–4:40. As relevant to the analysis below, *Nakayama* discloses that “streaming content is requested from [a]

WWW browser” and in response, a metafile is delivered to the WWW browser. *Id.* at 6:1–14; Houh (EX1007), ¶ 156.

Nakayama is analogous art. As detailed above, the ’553 Patent field of endeavor is media delivery over the Internet. *Nakayama* is within this field, as it relates to “streaming content...transferred continually in time” and it discloses that its invention “provides even more remarkable advantages when applied to a wide area network such as the Internet.” *Nakayama* (EX1006), 4:6–19. Thus, *Nakayama* is within the field of endeavor of the ’553 Patent. Houh (EX1007), ¶ 157. *Nakayama* is also reasonably pertinent to at least one problem addressed by the ’553 Patent of providing metafiles to web browsers, as *Nakayama* discloses that it was known in the art to provide metafiles to requesting web browsers. *See Nakayama* (EX1006), 6:1–14; Houh (EX1007), ¶ 158.

3. Analysis

Claim 1

[1.0] A method for streaming a media file over a distributed information system to a client computer running a browser application, the method comprising the steps of:

As detailed in the analysis of Ground 1, the preamble of claim 1 is not a limitation. To the extent the preamble is limiting, *Day* discloses it, or at least renders obvious.

First, *Day* discloses *streaming a media file* as it describes that a “data pump
213 **streams the** data to the client and the client receives the data into its network
subsystem 225 where **data is passed to the multimedia player** for presentation.”
Day (EX1005), 5:49–52; Houh (EX1007), ¶ 160.

Second, *Day* discloses *streaming over a distributed information system to a
client computer* as it describes that the “data pump...is arranged to play a file to a
client across a **network 105** as shown.” *Day* (EX1005), 3:45–47. As detailed in the
Background of *Day*, a network may include “the Internet,” which the ’553 Patent
provides as an example of a *distributed information system*. *Id.* at 1:35–39; ’553
Patent (EX1001), 1:7–12; Houh (EX1007), ¶ 161.

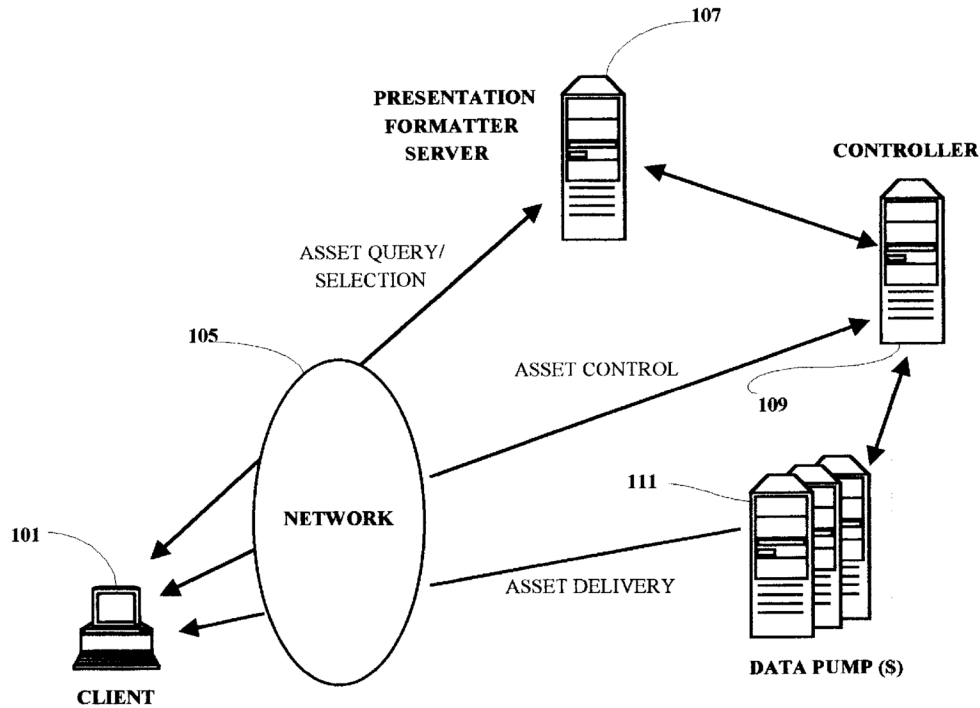


FIG. 1

Third, *Day* discloses that the *client computer* is *running a browser application*: “a client system 203 [] may include a web browser 221....” *Day* (EX1005), 3:34–37. Houh (EX1007), ¶ 162. The *browser application* in *Day* “receives the HTML metafile, and...launches the video client code...on the client system to play back the asset.” *Day* (EX1005), 5:37–41; *see also* ’553 Patent (EX1001), 6:39–43 (“web browser 122...selects a suitable multimedia player 126....It starts the multimedia player 126 and forwards the received streaming metadata information to it....”).

Thus, *Day* discloses, or at least renders obvious, the preamble of claim 1.

Houh (EX1007), ¶¶ 159–163.

[1.1] receiving a request for a particular media file from a client computer;

Day discloses, or at least renders obvious, this limitation, because it describes a client web browser that requests a multimedia asset.

Day discloses that the “**client web browser 221** would request from the presentation formatter server 207 an HTML page containing links to a presentation formatter program. The presentation formatter server 207 then returns the requested page and the client web browser 221 then selects a search function from the page to initiate a search from the available assets. **The client then selects an asset from the HTML page.**” *Day* (EX1005), 5:7–30; *see also id.* at 5:1–6 (the client may “**select a multimedia asset** from a listing on a HTML page presented to the client.”); Houh (EX1007), ¶ 165.

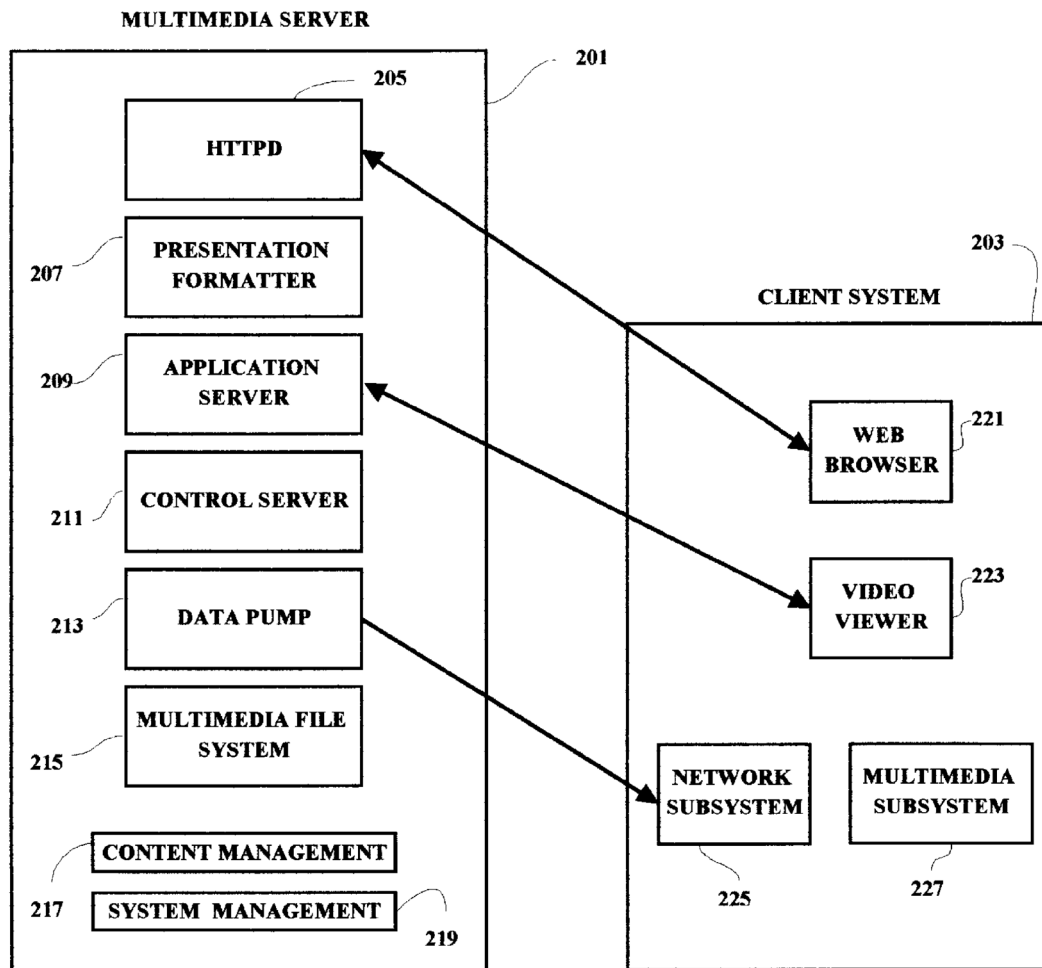


FIG. 2

The client’s selection of an “asset” discloses, or at least renders obvious, *a request for a particular media file* because through the user’s selection, the client sends a request to the server for a specific asset, for example, a video or movie. *See, e.g., Day (EX1005), 3:65–67 (“the client requesting an asset”); 3:67–4:2 (“application server receives requests from a client”); 1:43–52 (“data resources*

and assets in multimedia networks....a user or ‘client’ on a network or on the Internet may select a series of ‘active’ video display segments or ‘movies’ to be presented on the user’s display device.”) This is consistent with the BPAI’s interpretation of the phrase *request for a particular media file* because *Day* explicitly states that the client selects a multimedia asset (i.e., an actual media file) and not simply “information with regard to or with respect to the actual media file.” See Houh (EX1007), ¶¶ 166–168; ’553 PH (EX1002), p. 251. *Day* further discloses that the request is *receiv[ed]*, because immediately following the client selecting “a multimedia asset from a listing on a HTML page,” *Day* describes that “[t]he presentation formatter server 207 **receives the request** and runs the VSP (video selection presentation) formatter program.” *Day* (EX1005), 5:30–33; Houh (EX1007), ¶ 169.

Thus, by describing that the presentation formatter server receives the client’s request for a multimedia asset, *Day* discloses *receiving a request for a particular media file from a client computer*. Houh (EX1007), ¶¶ 164–170.

[1.2] providing a metafile, wherein said metafile contains information about the identification, location and format of the media file,

Day in view of *Nakayama* renders obvious this limitation. Specifically, *Day* discloses the creation of a *metafile* with pertinent information regarding the requested asset, which *metafile* is provided to the presentation formatter server, and

Nakayama discloses the contents of such a *metafile* including the recited *identification, location, and format of the media file*.

After the request for the media file is received by the presentation formatter server, which runs the VSP formatter program, as detailed in limitation [1.1], *Day* discloses that the “VSP formatter passes the selection request to the controller 211 where **an HTML metafile is created containing the pertinent information regarding the selected asset.**” *Day* (EX1005), 5:30–35. *Day* further explains that the “metafile is returned via the presentation formatter server to the client” and thus, the *metafile* is *provid[ed]* to the presentation formatter server. *Id.* at 5:36–37; Houh (EX1007), ¶ 172. Thus, *Day* discloses *providing a metafile, wherein said metafile contains information about ... the media file*.

That the pertinent information includes information about the *identification, location, and format* of the asset is rendered obvious by the combined teachings of *Day* and *Nakayama*. *Day* does not specify what information is included in the “pertinent information regarding the selected asset.” *Day* (EX1005), 5:30–35. However, a POSITA would have recognized the “pertinent information regarding the selected asset” in the metafile would commonly include the recited *information about the identification, location and format of the media file*. Houh (EX1007), ¶ 173. For example, a POSITA would have recognized that, in a streaming media system such as that of *Day*, a client device must receive at least the *location* of a

requested media file so that the client device may obtain the media file for rendering.

Houh (EX1007), ¶ 174 (citing, e.g., Rosser (EX1008), p. 2 (“The server responds by sending the user a ‘metafile’ that contains the location of the streamed content.”)).

It was also known to provide the *identification* of the media file so that the client device could ensure it was receiving the correct media file, as well as the *format* of the media file so that the client device could execute the correct rendering application (e.g., RealPlayer, Windows Media Player, etc.). Houh (EX1007), ¶ 175. This is confirmed by *Nakayama*.

For example, in an analogous system, *Nakayama* discloses metafile data sent to a WWW browser in response to a request for media content. *Nakayama* discloses that the metafile data includes the *identification, location, and format* of a *media file*. For example, in response to a request for “streaming content” from a “WWW browser,” *Nakayama* describes “response data prepared in response to the request for streaming content” and depicts such a response in Figure 6. *Nakayama* (EX1006), 6:1–18.

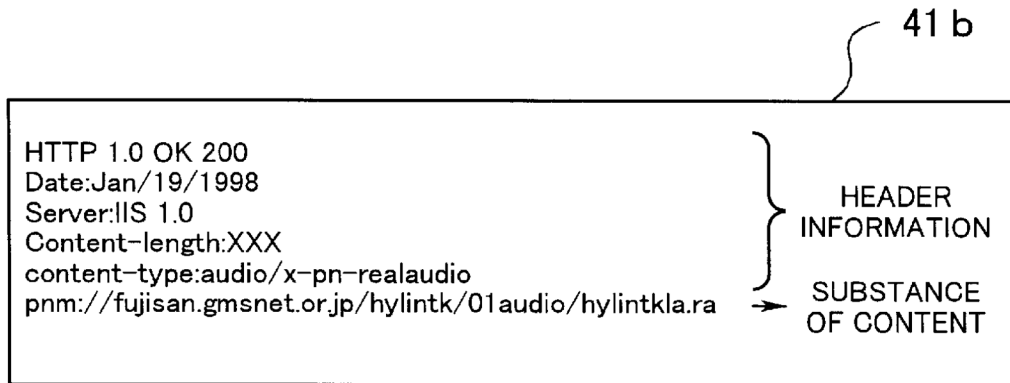


FIG. 6

As shown in *Nakayama*'s Figure 6, the *metafile* contains information about the identification, location and format of the media file. For example, the response data includes a MIME type, which corresponds to the *format* of the media file, as *Nakayama* explains that the “WWW browser 11 receives ‘audio/x-pn-realaudio’ as the MIME type, and therefore, it looks up the MIME table 11a and searches for a corresponding application...” *Nakayama* (EX1006), 6:20–23; Houh (EX1007), ¶¶ 176–177. The *metafile* also includes the *identification* and *location* of the media file in the URL, where the *identification* corresponds to at least the “hylintk/01/audio/hylintkla.ra” portion and the *location* corresponds to the “pnm://fujisan.gmsnet.or.jp/” portion. Houh (EX1007), ¶ 178 (*citing* RFC 1738 (EX1009) as detailing the standardized format for Uniform Resource Locators).

A POSITA would have been motivated to combine the teachings of *Day* and

Nakayama. Specifically, the combined teachings would have been no more than the combination of prior art elements according to known methods to yield predictable results. For example, the combination is no more than *Day*'s teaching of a system that provides metafiles with *Nakayama*'s teachings of the contents of a metafile, which would have predictably resulted in *Day*'s system providing metafiles with the contents specified by *Nakayama*. A POSITA would have been motivated to do so to provide *Day*'s client device with the ability to “search[] for a corresponding application” and “start [] the application” and subsequently pass the multimedia content's location “to this player as a parameter” (*Nakayama* (EX1006), 6:20–34) so that *Day*'s system can “start the playback” of the asset (*Day* (EX1005), 5:41–43). Houh (EX1007), ¶ 179. As Dr. Houh explains, a “metafile” contains the location of the streamed content and that, “[o]nce the metafile is received, the user's streaming player software will be launched automatically, and the player sends a request for content to the server designated in the metafile.” Houh (EX1007), ¶ 180 (quoting Rosser (EX1008)). Thus, a POSITA would have reasonably expected success in the combination, as it would have resulted in a streaming media system operating in accordance with the knowledge in the art. Thus, for at least this reason, a POSITA would have been motivated to combine the teachings of *Day* and *Nakayama*.

Although in *Nakayama*, a client (WWW browser) requests a metafile, and not a media file, the combination relies on the teachings of the contents of a metafile in

Nakayama and not the details of the request in *Nakayama*. Thus, to the extent Patent Owner argues that *Nakayama*'s request is for a metafile (which the '553 Patent contrasts with the recited *request for a particular media file*), such an argument would be inconsistent with the teachings applied in the combination and would not be relevant to establishing non-obviousness of the claim. Houh (EX1007), ¶ 181.

The combined teachings of *Day* and *Nakayama* therefore render obvious *providing a metafile, wherein said metafile contains information about the identification, location and format of the media file* as recited. Houh (EX1007), ¶¶ 171–182.

[1.3] returning said metafile back to said client computer,

Day discloses, or at least renders obvious, this limitation. *Day* states that, after the “VSP formatter passes the selection request to the controller 211 where an HTML metafile is created” then “[t]he **metafile is returned via the presentation formatter server to the client.**” *Day* (EX1005), 5:30–37; Houh (EX1007), ¶¶ 183–185.

[1.4.1] characterized in that the step of receiving a request for a particular media file from a client computer comprises the steps of: intercepting a download request for the actual media file and [1.4.2] reinterpreting said download request into a request for receiving a corresponding metafile.

Day discloses, or at least renders obvious, this limitation.

The '553 Patent explains that, in its invention, “the server intercepts a download request for the actual media file and reinterprets the download request into a request for receiving a corresponding metafile. Thus, instead of returning the requested media file, a metafile is returned that allows immediate streaming of the requested media file without the need of waiting for the download to be finished.” '553 Patent (EX1001), 3:29–45; Abstract; Houh (EX1007), ¶ 187. More specifically, although the '553 Patent does not elaborate on the meaning of “intercepting,” a POSITA would have recognized that the '553 Patent refers to limitations [1.4.1]–[1.4.2] as corresponding to at least the following aspects of the disclosure: (1) “HTTP protocol handler 132 according to the present invention reinterprets the HTTP request so that it returns streaming metadata instead”; and (2) “the HTTP protocol handler 132 requests metadata for the requested resource”. '553 Patent (EX1001), 5:61–6:33; Houh (EX1007), ¶ 188.

In *Day*, just as in the '553 Patent, “instead of returning the requested media file, a metafile is returned,” ('553 Patent (EX1001), 3:29–45) because instead of

delivering the multimedia file in response to a client's request for the asset, it reinterprets the request as being for an HTML metafile and returns this instead. Houh (EX1007), ¶ 189.

As detailed above, *Day* performs *receiving a request for a particular media file from a client computer*: “the client proceeds immediately to select a multimedia asset from a listing on a HTML page presented to the client.” *Day* (EX1005), 5:1–6; *see also* 3:65–4:2 (describing client requests); Houh (EX1007), ¶ 190. *Day* further teaches that such *receiving* includes *intercepting a download request for the actual media file and reinterpreting said download request into a request for receiving a corresponding metafile*.

Specifically, in response to the client's request, a metafile is first provided, not the multimedia file itself (e.g., from a data pump, which “stores multimedia files” and is “arranged to play a file to a client across a network” (*Day* (EX1005), 3:43–45).⁵ *Day* describes that the “presentation formatter server 207 receives the request and runs the VSP (video selection presentation) formatter program” (which corresponds to *intercepting a download request for the actual media file*). *Day* (EX1005), 5:30–33. The *Day* system in turn returns streaming metadata instead

⁵ The data pump provides data to the client only after the metafile is provided. *See, e.g., Day* (EX1005), 5:45–52; Houh (EX1005), ¶ 192.

(aspect (1) above) and, in doing so, “an HTML metafile is created” upon a request from the “VSP formatter...to the controller 211” (aspect (2) above) (which corresponds to *reinterpreting said download request into a request for receiving a corresponding metafile*) and the “metafile is returned via the presentation formatter server to the client.” *Id.* at 5:30–37; *see also* ’553 PH (EX1002), p. 198 (“a download request for the actual media file is intercepted and reinterpreted into a request for receiving a corresponding metafile, which is returned to the client computer.”). The metafile is then returned via the presentation formatter server. *Day* (EX1005), 3:26–32; Fig. 2; Houh (EX1007), ¶¶ 191–193.

Thus, *Day* discloses or at least renders obvious *intercepting a download request for the actual media file and reinterpreting said download request into a request for receiving a corresponding metafile* consistent with the ’553 Patent’s disclosure, and therefore renders these limitations obvious. Houh (EX1007), ¶¶ 186–195.

Accordingly, the combined teachings of *Day* and *Nakayama* render obvious every limitation of claim 1.

Claim 4

[4.1] The method according to claim 1, wherein the step of providing a metafile comprises one of the steps of: dynamically generating a metafile, and statically querying a metafile from a data store.

Day discloses this limitation, as it describes that the “VSP formatter passes the selection request to the controller 211 where **an HTML metafile is created containing the pertinent information regarding the selected asset.**” *Day* (EX1005), 5:30–35. A POSITA would have interpreted *Day*’s creation of an HTML metafile in response to receiving the selection request to correspond to *dynamically generating a metafile* as recited because the ’553 Patent uses the term creation to refer to *generating* as recited (*see, e.g.*, ’553 Patent (EX1001), 3:46–50). Thus, *Day* discloses, or at least renders obvious, this limitation. Houh (EX1007), ¶¶ 197–200.

Claim 8

[8.0] A computer-readable program stored on a non-transitory computer-readable medium, said computer readable program being configured to perform the steps of:

The preamble is not a limitation, because the body of the claim does not rely on any portion of the preamble for antecedent basis or structure. However, to the extent the preamble is limiting, *Day* renders it obvious, as it describes, for example, “multimedia server 201” which includes “an HTTPD unit for web communications” and “a presentation manager 207” which a POSITA would have interpreted as being implemented by software instructions, or a *computer-readable program stored on a non-transitory computer-readable medium* as recited. For example, a POSITA would have recognized that HTTPD was server software. Houh (EX1007), ¶¶ 202–

203 (citing EX1011: “Prior to Apache, the most popular server software on the Web was the public domain HTTP ‘daemon’ (httpd)....”). A POSITA would have recognized *Day’s* server software (i.e., a *computer-readable program*) to at least render obvious a program *stored on a non-transitory computer-readable medium* for example, a hard disk drive, so that the software may be executed by appropriate hardware (e.g., a processing device of the server). Houh (EX1007), ¶ 203. Thus, *Day* discloses, or at least renders obvious, a *computer-readable program stored on a non-transitory computer-readable medium* as recited. Houh (EX1007), ¶¶ 201–204.

[8.1] receiving a request for a particular media file from a client computer;

Day discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [1.1]. Further, as detailed above in the analysis of limitation [1.1], the request is received by “presentation manager” or “presentation formatter 207.” *Day* (EX1005), 5:30–33; Fig. 2. Thus, *Day* discloses this limitation. Houh (EX1007), ¶¶ 205–206.

[8.2] providing a metafile, wherein said metafile contains information about the identification, location and format of the media file,

Day and *Nakayama* render obvious this limitation for the same reasons discussed above regarding limitation [1.2]. Further, as detailed in the analysis of

limitation [1.2], the combined teachings of *Day* and *Nakayama* render obvious that the presentation server is *provid[ed] a metafile*, for example, from the controller 211. *See Day* (EX1005), 5:30–36 (“VSP formatter passes the selection request to the controller 211 where an HTML metafile is created containing the pertinent information regarding the selected asset. The metafile is returned via the presentation formatter server to the client.”); Houh (EX1007), ¶¶ 207–208.

[8.3] returning said metafile back to said client computer,

Day discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [1.3]. Further, as detailed in the analysis of limitation [1.3], *Day* discloses that the presentation formatter server delivers the metafile to the client. *See Day* (EX1003), 5:30–36; Houh (EX1007), ¶ 209.

[8.4.1] characterized in that the step of receiving a request for a particular media file from a client computer comprises the steps of: intercepting a download request for the actual media file and [8.4.2] reinterpreting said download request into a request for receiving a corresponding metafile.

Day discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitations [1.4.1]–[1.4.2]. Houh (EX1007), ¶ 210.

Claim 11

[11.1] The computer-readable program of claim 8, wherein the step of providing a metafile comprises one of the steps of: dynamically generating a metafile, and statically querying a metafile from a data store.

Day discloses or at least renders obvious this limitation for the same reasons discussed above regarding limitation [4.1]. *Houh* (EX1007), ¶ 211.

VII. DISCRETIONARY INSTITUTION

Petitioner respectfully submits that the Board should not exercise discretion under 35 U.S.C. §§314(a) or 325(d) to deny this Petition.

A. The Board Should Not Exercise Discretion to Deny Under § 325(d) Based on Previously Cited Art

None of the asserted prior art was “the basis for rejection” during examination and there is no “overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art.” *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8, 17-18 (PTAB Dec. 15, 2017) (precedential). Thus, discretionary denial under § 325(d) would not be appropriate.

B. The Board Should Not Exercise Discretion to Deny Under § 314(a) Based on Previous Petitions

The Board should also not exercise discretion under § 314(a), as the ’553 Patent has not been challenged in any prior petition and thus no *General Plastic* factors apply. *See General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*,

IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (§II.B.4.i. precedential).

**C. The Board Should Not Exercise Discretion to Deny Under
§ 314(a) Based on Parallel Litigations**

Patent Owner has asserted the '553 Patent in multiple litigations (“the Parallel Litigations”) in various jurisdictions (including the Southern District of New York, Southern District of Texas, District of Delaware, and Eastern District of Texas). *See* § I.B.

Petitioner is not a defendant, real party-in-interest, or privy of any district court defendant, and Petitioner is not involved in any district court litigation. *See* Jakel Declaration (EX1010). Petitioner has not communicated with any district court litigant regarding this Petition, the Parallel Litigations, or the '553 Patent. *Id.* Therefore, Petitioner provides the analysis below based on publicly available information.

Under the analysis set forth in *Fintiv* (*Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”)), the Board should not deny this Petition.

Fintiv factor 1 favors institution, or at worst is neutral. As mentioned, Petitioner is not a party to any district court litigation. Further, as to any other pending cases, it is speculative whether a district court would grant a stay in any proceedings involving the '553 Patent; no motions to stay have been filed. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020)

(informative) (finding that, absent evidence a stay will be granted, this factor does not weigh for or against discretionary denial); *Sand Revolution II, LLC v. Cont'l Intermodal Grp.–Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative) (finding same).

Fintiv factor 2 favors institution. No trial date has been set, or even proposed, in any pending matter. Two cases settled even before the defendant filed an answer. Eight litigations remain pending, and in only one litigation has a defendant filed an answer. Further, whether any trials will proceed at all, let alone as scheduled is speculative at best. *See, e.g., See, e.g., Dish Network v. Broadband iTV, Inc.*, IPR2020-01280, Paper 17 at 17–18 (PTAB Jan. 21, 2021). Given Unified's independent purpose of deterring this non-practicing entity ("NPE") from continuing its wave of litigation against a sector of industry, the relevance of the timing or the occurrence of trial is greatly attenuated as compared to *Dish*.

Fintiv factor 3 favors institution. It is unclear whether Patent Owner, the district court litigants, and the district courts will have made any investment with respect to the merits of invalidity at the time of the institution decision. An institution decision is expected by December 2022. Given that only one answer has been filed and no schedule is of record, it is likely that any investment and effort in the merits of invalidity (if any such investment occurs at all) will occur *after* the Board's institution decision.

Fintiv factor 4 also favors institution. The Petition challenges claims 1, 4, 6, 8, 11, and 13. According to public records, only claim 1 is at issue in the parallel litigations. Petitioner is not a party to any co-pending case, so it is unaware of any overlap in issues. As Petitioner's perspective, goals and business model is unique, it has independently pursued invalidity grounds without discussion, interaction, involvement, or input of any kind with any defendant. EX1010, ¶ 13. There is no evidence that invalidity contentions have been exchanged such that any overlap may be evaluated. Should Patent Owner argue in favor of discretionary denial based on any overlap between asserted grounds and any district court invalidity contentions, Patent Owner should make such invalidity contentions of record to allow Petitioner and the Board to evaluate the degree of overlap.

Fintiv factor 5 also favors institution because Petitioner is not the same party or even related to any defendant., None of the defendants have control over the Petition or Petitioner, and likewise, Petitioner has no ability to control the defendants. See EX1010, ¶ 6; *Unified Patents, LLC v. Gesture Technology Partners, LLC*, IPR2021-00917, Paper 11 at 42 (PTAB Nov. 22, 2021).

Fintiv factor 6 also favors institution. The Petition speaks for itself as to its strong merit, and the prior art, which was not before the examiner, goes directly to the reasons for allowance. Noblewood IP is a serial filer of infringement suits—since January 2022, Noblewood has filed 12 lawsuits involving this patent alone.

Therefore, reaching a determination as to the unpatentability of the '553 Patent would be in the interest of efficiency.

Thus, the *Fintiv* factors weigh heavily against discretionary denial.

D. Discretionary Factors Summary

As detailed above, none of the discretionary bases under either §§ 325(d) or 314(a) support denial.

VIII. CONCLUSION

Petitioner asks that the Office order an *inter partes* review trial for claims 1, 4, 6, 8, 11, and 13 and then cancel these claims as unpatentable.

Respectfully submitted,

June 13, 2022

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Registration No. 66,630

IX. CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. §42.24, the undersigned attorney for the Petitioner, Unified Patents, LLC, declares that the argument section of this Petition (Sections II-VIII) has 12,115 words, according to the word count tool in Microsoft Word™.

/Raghav Bajaj/
Raghav Bajaj
Counsel for Petitioner
Registration No. 66,630

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Unified Patents, LLC	§	Petition for <i>Inter Partes</i> Review
Petitioner	§	
	§	U.S. Patent 7,941,553
	§	
	§	

CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 35 U.S.C. § 312(a)(5) and 37 C.F.R. §§42.105 and 42.6, that service was made on the Patent Owner as detailed below to an address known to the petitioner as likely to effect service.

Date of service June 13, 2022

Manner of service FEDERAL EXPRESS

Documents served Petition for *Inter Partes* Review, including Exhibit List;
Exhibits 1001 through 1015

Persons served Noblewood IP LLC
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