

Petition for *Inter Partes* Review of
U.S. Patent No. 11,416,898 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

BRODTI INC.,
Patent Owner

Case IPR2025-00472
Patent 11,416,898 B2
Issue Date: August 16, 2022

Title: METHODS, SYSTEMS, AND APPARATUS FOR
FINANCING PROJECTS

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 11,416,898 B2**

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List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 11,416,898 B2 to John E. DeTitta (filed May 24, 2019, issued August 16, 2022) (“ 898 ” or “ 898 patent ”)
1002	Declaration of Mark Crovella, Ph.D. (“ Crovella ”)
1003	U.S. Patent Application Pub. No. 2004/0054589 A1 to Frank C. Nicholas et al. (filed September 8, 2003, published March 18, 2004) (“ Nicholas ”)
1004	U.S. Patent Application Pub. No. 2004/0128547 A1 to Robert Laidlaw et al. (filed December 31, 2002, published July 1, 2004) (“ Laidlaw ”)
1005	U.S. Patent Application Pub. No. 2001/0039515 A1 to Vijay Mayadas (filed May 2, 2001, published November 8, 2001) (“ Mayadas ”)
1006	U.S. Patent Application Pub. No. 2005/0027594 A1 to Elliot Yasnovsky et al. (filed November 3, 2003, published February 3, 2005) (“ Yasnovsky ”)
1007	U.S. Patent No. 8,156,216 B1 to Brent Error (filed January 10, 2003, issued April 10, 2012) (“ Error ”)
1008	U.S. Patent No. 6,138,142 to Steven J. Linsk (filed December 20, 1996, issued October 24, 2000) (“ Linsk ”)
1009	Excerpts from Robbin Zeff et al., <i>Advertising on the Internet</i> (2d ed. 1999) (“ Zeff ”)
1010	Excerpts from <i>Microsoft Computer Dictionary</i> (5th ed. 2002)
1011	Excerpts from <i>Dictionary of Computer and Internet Terms</i> (8th ed. 2003)
1012	U.S. Provisional Patent Application No. 60/298,329 (incorporated by reference into Nicholas, EX1003)

List of Exhibits

Exhibit No.	Description of Document
1013	U.S. Provisional Patent Application No. 60/362,297 (incorporated by reference into Nicholas, EX1003)
1014	Excerpts from Bob Baxley, <i>Making the Web Work: Designing Effective Web Applications</i> (2002) (“ Baxley ”)
1015	WO 01/59653 A1 to Neal J. Manowitz (filed January 31, 2001, published August 16, 2001) (“ Manowitz ”)
1016	Excerpts from James F. Korsh, <i>Data Structures, Algorithms, and Program Style</i> (1986) (“ Korsh ”)
1017	Declaration of Ingrid Hsieh-Yee, Ph.D.
1018	Proof of Service of Complaint in <i>BrodTi Inc. v. Google LLC</i> , Case No. 1:24-cv-00173-JCB (D. Del.)
1019	Plaintiff’s Notice of Voluntary Dismissal in <i>BrodTi Inc. v. Google LLC</i> , Case No. 6:24-cv-00058-RP (W.D. Tex.)

I. MANDATORY NOTICES UNDER §42.8(A)(1)

A. Real Party-In-Interest under §42.8(b)(1)

Google LLC (“Petitioner”) is the real party-in-interest to this IPR petition.¹

B. Related Matters under §42.8(b)(2)

The ’898 patent is the subject of the following pending litigation against Petitioner in the U.S. District Court for the District of Delaware: *BrodTi Inc. v. Google LLC*, Case No. 1:24-cv-00173-JCB (D. Del.). Petitioner was first served with the Complaint in that action on May 1, 2024. (EX1018.)

The ’898 patent was also the subject of a previous suit against Petitioner in the U.S. District Court for the Western District of Texas, *BrodTi Inc. v. Google LLC*, Case No. 6:24-cv-00058-RP (W.D. Tex.), which was filed on January 29, 2024. The complaint in the Western District of Texas action was never served, and the action was voluntarily dismissed on January 31, 2024. (EX1019.)

C. Lead and Back-Up Counsel under §42.8(b)(3)

Petitioner provides the following designation of counsel.

LEAD COUNSEL	BACK-UP COUNSEL
Heidi L. Keefe (Reg. No. 40,673)	Andrew C. Mace (Reg. No. 63,342)

¹ Google LLC is a subsidiary of XXVI Holdings Inc., which is a subsidiary of Alphabet Inc. XXVI Holdings Inc. and Alphabet Inc. are not real parties in interest to this proceeding.

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LEAD COUNSEL	BACK-UP COUNSEL
hkeefe@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Ave. NW, Suite 700 Washington, DC 20004 Tel: (650) 843-5001 Fax: (650) 849-7400	amace@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Ave. NW, Suite 700 Washington D.C. 20004 Tel: (650) 843-5287 Fax: (650) 849-7400
	Mark R. Weinstein (Admission <i>pro hac vice</i> to be requested) mweinstein@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Avenue NW Suite 700 Washington D.C. 20004 Tel: (650) 843-5007 Fax: (650) 849-7400
	Reuben Chen (Admission <i>pro hac vice</i> to be requested) rchen@cooley.com COOLEY LLP ATTN: Patent Group 1299 Pennsylvania Avenue NW Suite 700 Washington D.C. 20004 Tel: (650) 843-5007 Fax: (650) 849-7400

D. Service Information

This Petition is being served by Federal Express to the correspondence address of record for the '898 patent, John Eric De Titta, 54 West Avenue Unit 7,

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Fairport, NY 14450. Petitioner consents to electronic service at the addresses provided above for lead and back-up counsel.

II. FEE PAYMENT

Petitioner requests review of 20 claims, with a \$41,500 payment.

III. REQUIREMENTS UNDER §§ 42.104 AND 42.108 AND CONSIDERATIONS UNDER §§ 314(A) AND 325(D)

A. Grounds for Standing

Petitioner certifies that the '898 patent is available for IPR and that Petitioner is not barred or otherwise estopped.

B. Identification of Challenge and Statement of Precise Relief Requested

Petitioner requests IPR institution based on:

Ground	Claims	Basis for Challenge under §103
1	1-6, 9-15, 18-19	Nicholas (EX1003) in view of Laidlaw (EX1004), Mayadas (EX1005), and Error (EX1007)
2	7-8, 16-17, 20	Ground 1 Prior Art + Yasnovsky (EX1006)
3	1-6, 9-15, 18-19	Ground 1 Prior Art + Manowitz (EX1015)
4	7-8, 16-17, 20	Ground 2 Prior Art + Manowitz

Submitted with this Petition is the Declaration of Mark Crovella, Ph.D. (**EX1002**) ("Crovella"), a qualified technical expert. (**EX1002**, ¶¶1-7, Ex. A.)

C. Considerations Under §§ 314(a) and 325(d)

§314(a): The *General Plastic* factors are not relevant as this is the first IPR petition filed against the '898 patent. Nor do the *Fintiv* factors support discretionary denial. The pending litigation against Petitioner is early stage—no trial date has been set and no claim construction rulings have occurred. The Petition was filed months before the one-year deadline under §315(b).

§325(d): This Petition does not raise §325(d) concerns because it relies on prior art that was not considered during prosecution.

IV. OVERVIEW OF THE PATENT

A. Level of Ordinary Skill

A person of ordinary skill would have possessed a bachelor's degree in electrical engineering, computer science, or similar field, with at least two years of experience in developing and implementing network-based computer systems, such as systems for sending and receiving information over the Internet and/or the Web. A person could also have qualified with more formal education and less technical experience, or vice versa. (EX1002, ¶¶9-12.)

B. Specification Overview

The '898 patent relates to “a process that allows advertisers to finance media productions through advertising media buys while eliminating the risk of normal event financing speculative investment.” ('898, 1:22-26.) Figure 1 depicts an

embodiment in which client system **10** accesses server system **18**:

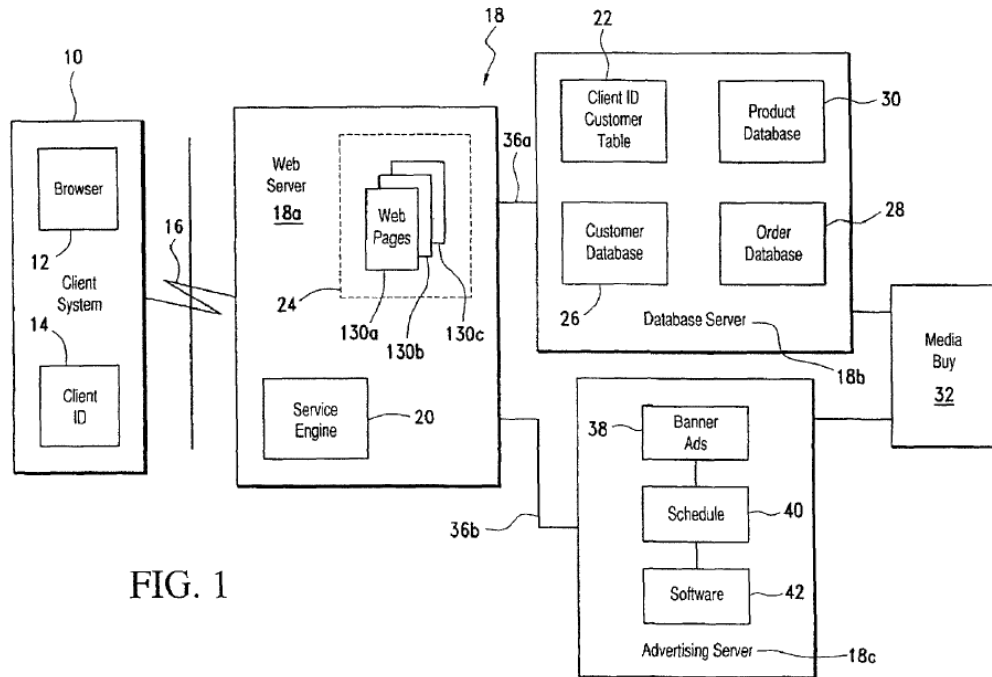


FIG. 1

(’898, 3:26-31, Fig. 1.)

Server system **18** includes advertising server **18c** programmed to regulate advertisements to be seen by users. (’898, 3:51-53.) Advertising server **18c** stores advertisement materials in the form of banner ads, pop-ups, text ads, etc., and runs the ads “based on predetermined impressions, length of contract with the advertiser.” (’898, 3:53-58.) A “web property is marketed to a target audience who visits the web property to view the content provided.” (’898, 4:31-33.) Visits to the web property—“impressions”—“create a commodity in the advertising community” and can be sold to an advertiser. (’898, 5:17-21.) An advertiser wanting to market itself to the targeted audience purchases targeted impressions at a predetermined media

buy in order to place advertising materials on a screen of the property. ('898, 5:22-28.) Once the media buy is fulfilled, the advertiser is invoiced. ('898, 5:38-41.) The advertiser pays the invoice, and the revenue generated is placed into a fund, such as a bank account. ('898, 5:41-45.)

V. CLAIM CONSTRUCTION

Petitioner does not believe express claim construction is necessary to resolve this Petition. Petitioner reserves its right to respond to any claim construction positions advanced by Patent Owner.

VI. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. Overview of Grounds

The challenged claims attempt to lay claim to techniques for Internet-based targeted advertising that were well-known. This Petition relies primarily on Nicholas (**EX1003**), which describes a self-service targeted advertising system similar to the '898 patent in which advertisers, through a web-based user interface, specify parameters for an advertising campaign including the targeted websites and the desired number of advertising impressions. (Nicholas, Figs. 6 & 8; EX1002, ¶¶42-50.) Nicholas is a strong reference that discloses the majority of the limitations of the challenged claims. The Petition adds Mayadas (**EX1005**), which describes a similar self-service targeted Internet advertising system but provides more detail

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about collecting funds from advertisers and paying websites for displaying advertisements. (EX1002, ¶¶57-59.)

Laidlaw (EX1004) and Error (EX1007) are cited for standard features of web-based systems that, although not expressly described in Nicholas, were well-known. *See, e.g., Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534 (Fed. Cir. 1987) (“A patent need not teach, and preferably omits, what is well known in the art.”). Laidlaw discloses “cookies,” a technology employed by hundreds of millions of websites to identify users and track their activities. (EX1002, ¶¶51-55.) Error discloses web beacons in which a single-pixel image file can be embedded in a webpage to record when users view the page. (EX1002, ¶¶61-64.) The monitoring techniques in Laidlaw and Error were well-known in the art. (EX1002, ¶¶92-98, 133-138.) **Ground 2** cites Yasnovsky (EX1006) in connection with dependent claims 7-8, 16-17, and 20 for its more detailed disclosures of establishing advertising budgets and collecting funds to pay for advertisements. (EX1002, ¶¶68-72.)

Grounds 3-4 mirror **Grounds 1-2** but further cite Manowitz (EX1015), to account for a narrow claim construction argument suggested by Patent Owner in co-pending litigation, in the event Patent Owner makes that argument here. (EX1002, ¶¶75-77.) Patent Owner has suggested, in connection with patent eligibility under § 101, that the “**web property content owner**” recited in the independent claims must be different from the owner or publisher of the website on which the content

appears. Petitioner does not concede that this argument has merit, but Petitioner has nevertheless cited Manowitz to confirm that the claims are obvious even under this interpretation.

Nicholas and Laidlaw qualify as prior art under at least §§ 102(a) and 102(e) (pre-AIA) because they are U.S. patent applications published and filed before the earliest possible priority date for the '898 patent (November 12, 2004).² Mayadas and Manowitz qualify as prior art under at least § 102(b). Yasnovsky and Error qualify as prior art under at least § 102(e).

Petitioner has also cited Linsk (EX1008), Zeff (EX1009), Baxley (EX1014), and Korsh (EX1016) to confirm the background knowledge of a skilled artisan and/or confirm a motivation to combine. (EX1002, ¶¶95, 100, 107, 119.) These references also qualify as prior art under at least § 102(b). (EX1017 (Hsieh-Yee Decl.), ¶¶24-96.)

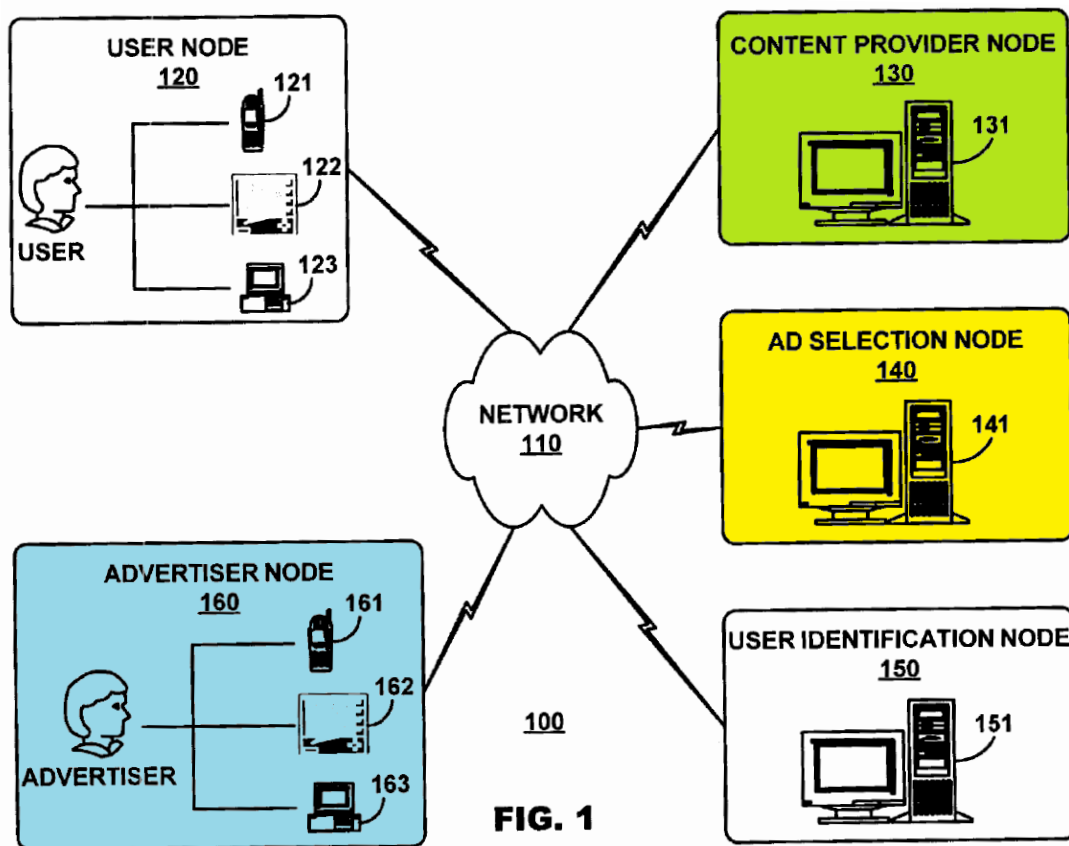
B. Ground 1: Claims 1-6, 9-15, and 18-19 Are Obvious Over Nicholas in View of Laidlaw, Mayadas, and Error.

1. Claim 1

As explained below, the proposed combination discloses and renders obvious

² The '898 patent claims priority to a November 12, 2004 provisional application. Petitioner does not concede that the claims are entitled to this priority date, but the relied-upon prior art references nevertheless predate it. The relied-upon references qualify as prior art under both pre-AIA and AIA rules. Petitioner reserves the right to respond if Patent Owner later attempts to antedate any of the prior art.

“[a] **computer-implemented method**” for delivering advertisements over the Internet. (EX1002, ¶80.) **Ground 1** relies primarily on Nicholas, which discloses an advertising system with multiple components as shown in Figure 1:



(Nicholas, Fig. 1.) User node **120** in Figure 1, as its name implies, is used by a user to establish communications over network **110** (such as the Internet) with other nodes. (Nicholas, ¶¶0043-0044.) User node **120** can be a conventional personal computer with a web browser. (Nicholas, ¶¶0043-0044, 0102; EX1002, ¶44.)

For **Ground 1**, the key components of Figure 1 include ad selection node **140**, advertiser node **160**, and content provider node **130**. Advertiser node **160** is used by

an advertiser “to facilitate communications of advertisements in audio form and/or visual form between an advertiser and the ad selection node 140.” (Nicholas, ¶0052.) It may also be a conventional personal computer. (*Id.*)

Content provider node 130 “includes one or more servers 131 for conventionally communicating with the other nodes of telecommunication system 100.” (Nicholas, ¶0045.) For example, content provider node 130 can provide “a consumer web site,” which “can be a standard web site made up of HTML pages accessible on the Internet,” by conventional web browsers. (Nicholas, ¶0106.)

This brings us to ad selection node 140—the key component of Nicholas for this Petition. A function of ad selection node 140 (as its name implies) is to select advertisements that will be displayed to user node 120 through content provider node 130. (Nicholas, ¶0047.) Another function of ad selection node 140, described in more detail below, is to allow an advertiser via advertiser node 160 to define and create its advertisement. (Nicholas, ¶¶0056-0057.)

- (a) “receiving, by one or more processors, from a given client, over an Internet-based communication link from a browsing application executed on the given client processor to the one or more processors, a message comprising data, the data comprising advertising material to populate on one or more websites;” (1[a])

The following table summarizes Petitioner’s mapping for 1[a]:

Element from Limitation 1[a]	Summary of Prior Art Disclosures
“one or more processors”	Ad selection node 140 in Nicholas, which includes at least one processor
“a given client”	Advertiser node 160 , such as a personal computer used by an advertiser to access ad selection node 140 over the Internet
“a browsing application executed on the given client”	Web browser application executing on advertiser node 160
“a message comprising data, the data comprising advertising material to populate on one or more websites”	Message received by ad selection node 140 from advertiser node 160 that includes data defining an advertisement that will be placed on websites

The “**one or more processors**” in 1[a] corresponds in Nicholas to ad selection node **140**, which “includes one or more servers **141** for conventionally communicating with the other nodes of telecommunication system **10**.” (Nicholas, ¶0047.) It would have been obvious and apparent that one or more servers **141** of ad selection node **140** would have included at least one processor. (EX1002, ¶81.) Nicholas explains, for example, that a server “includes conventional hardware platforms” (Nicholas, ¶0047), which would have included at least one processor. (EX1002, ¶¶81, 168 (*also citing* EX1012, 008:16-25; *see also id.*, Fig. 2 & 006:5-7).)

The claimed “**a given client**” in Nicholas corresponds to advertiser node **160**, such as a personal computer used by an advertiser. (EX1002, ¶82.) Nicholas explains that “advertiser node **160** of telecommunication system **100** operates to

facilitate communications of advertisements in audio form and/or visual form between an advertiser and the ad selection node **140**.” (Nicholas, ¶0052.)

Turning to “**receiving, by one or more processors, from a given client, over an Internet-based communication link from a browsing application executed on the given client processor to the one or more processors, a message comprising data,**” this occurs when ad selection node **140** (“**one or more processors**”) receives a “**message**” from advertiser node **160** (“**a given client**”) that comprises data defining an advertisement. Petitioner will describe this message in further detail below. That message is received “**over an Internet-based communication link,**” because communications between nodes take place over the Internet. (Nicholas, ¶0043.) The message is also received “**from a browsing application,**” *i.e.*, from a browser on advertiser node **160** that communicates with ad selection node **140**. (Nicholas, ¶¶0056-0058; EX1002, ¶83.)

The claimed “**a message**” received by ad selection node **140** is the one or more messages sent by advertiser node **160** that include advertising material (such as an image or webpage) that will be used for the advertisement populated on one or more websites. (Nicholas, ¶¶0056 (“Ad selection node **140** (FIG. 1), in particular targeted ad server **141a** (FIG. 3) may include various interfaces for facilitating a communication of an advertisement to ad selection node **140** by an advertiser (FIG. 1) or its agent.”), 0052 (“An advertiser node **160** of telecommunication system **100**

operates to facilitate communications of advertisements in audio form and/or visual form between an advertiser and the ad selection node 140.”).³ In one example,

Figure 6 shows a webpage that allows the advertiser to define the advertisement:

The screenshot shows a web browser window with the title "Dizpersion". The address bar shows "http://www.dizpersion.com/". The page has a navigation bar with links: "accounts", "advertiser", "website", and "newspaper". Below this is a "Broadcast Ad" section with tabs: "Ad Upload", "Coupon", "Quantity", "Channels", "Geographic", "Demographic", and "Summary". The "Ad Upload" tab is selected. The main content area has a form with the following fields: "Company Name", "User Name", "Street Address", "City, State Zip", and a "Home" link. Below these fields is a "Steps" section with four numbered steps: 1. Select an Advertiser. (with a dropdown menu showing "Advertiser 1" and a "Create a New Advertiser Account" link), 2. Retrieve Advertisement. (with a "File:" label and a "Browse..." button), 3. Define Ad Type. (with an "Ad Type:" label and a dropdown menu showing "Banner"), and 4. Press Submit. (with a "Submit" button). The footer of the page contains "2001 Dizpersion Corporation", "Contact Us", "Privacy", and "Terms of Use".

201

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FIG. 6

(Nicholas, Fig. 6, ¶0058.)

Figure 6 depicts input fields for selecting advertiser **203**, advertisement file **205**, and type of advertisement **206**. (Nicholas, ¶0059.) Advertisement file **205** may include many different types of information, including among others, GIF and JPEG image files, an HTML webpage, or “any other file format that may be served over a network.” (*Id.*) Nicholas discloses other user interface screens, discussed below,

³ All emphasis added, unless otherwise noted.

that allow further optional refinement to the advertisement, such as specifying demographics of the target audience. (Nicholas, ¶0065, Fig. 12.)

Nicholas thus confirms that the advertiser through a web-based interface can provide the content of an advertisement (*e.g.*, graphics file, webpage) and other information (“**advertising material to populate on one or more websites**”). This information transmitted by advertiser node **160** to ad selection node **140** discloses “**a message**,” as claimed. (EX1002, ¶¶84-85.)

It would have been apparent and obvious that the information provided by advertiser node **160** to ad selection node **140** would have taken the form of at least one “**message**.” (EX1002, ¶¶86-87.) It was well-known that the Hypertext Transfer Protocol (HTTP), the protocol used for web pages, conveyed information from web browsers to servers in the form of requests or messages. (EX1002, ¶86.) It therefore would have been obvious that, when advertiser node **160** provides information using a web browser through the web interfaces in Nicholas, that information would have been received by ad selection node **140** in the form of one or more messages. For example, it would have been obvious that when an advertiser presses the “Submit” button shown in Figure 6 above, that would have resulted in transmission of an HTTP message to ad selection node **140** conveying the advertiser’s selections. (*Id.* (citing Nicholas, ¶¶0059, 0068).) This is consistent with the ’898 patent, which does not impose restrictions on the format of the claimed message, but instead refers to

this same mechanism for receiving and responding to HTTP messages. ('898, 4:4-24, 3:26-31; EX1002, ¶87.)

- (b) “identifying, by the one or more processors, the given client, based on receiving the message, an identifier, wherein the message comprises the identifier;” (1[b])

The prior art discloses and renders obvious 1[b] in two independent ways. First, as shown in Figure 6 above, the advertiser may provide an identifier of the advertiser associated with the advertisement being created. (Nicholas, ¶0059 (“Form input **203** [in Figure 6] may allow the user to select an advertiser for the advertisement being created.”).) It therefore would have been obvious that the message received by ad selection node **140** through Figure 6 not only includes the “**advertising material**” of 1[a], but also an identifier associated with the advertising material. (EX1002, ¶88.) The identification of the advertiser, in turn, identifies advertising node **160** (“**the given client**”) because the advertiser uses advertising node **160** to communicate with ad selection node **140**. (Nicholas, ¶0052 (“An advertiser node 160 of telecommunication system 100 operates to facilitate communications of advertisements in audio form and/or visual form between an advertiser and the ad selection node 140.”).)

As a second independent way of disclosing 1[b], the claimed “**identifier**” under the combination of Nicholas with Laidlaw comprises a cookie created after the advertiser logs in. As explained below, under this combination, advertiser node

160 would have transmitted this cookie to ad selection node **140** with each message, using well-known techniques. (EX1002, ¶¶89-96.)

Starting with Nicholas, it discloses that the user interface of Figure 6 is “accessible only when an appropriate user name and password combination is supplied.” (Nicholas, ¶0068.) Nicholas further discloses a web-based interface (Figure 14) for allowing the user to sign on by entering their username and password:

Dizpersion

home | contact us | site map | support | terms of use | privacy

RunningTen Login

User Name: 271

Password: 272

[Forgot your User Name or Password?](#) 272

☐ Save my User Name and Password 273

Contact Us | Site Map | Support
2001 Dizpersion Corporation. All Rights Reserved.
Terms of Use | Privacy

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FIG. 14

(Nicholas, Fig. 14.) Figure 14 shows a familiar login screen that allows the user to input a username and password, and further allows the user to choose to “Save my User Name and Password” through form element **273**. (*Id.*, ¶0068.)

It would have been obvious to implement the login and user name/password mechanism in Nicholas by using a “cookie” stored on advertiser node **160**. (EX1002, ¶¶91-92.) The term “cookie” generally refers to a technique dating back to the mid-1990s in which a web server sent a piece of information to a user’s web browser for storage. The web browser then stores that information as a cookie and sends, with each subsequent request to the website, that cookie information back to the web server. (EX1002, ¶91.) One of the primary uses of cookies is to convey user identification information so the web server can identify the user when the user issues requests to the website, after the user has logged-on. (EX1002, ¶¶91, 95.) As applied to Nicholas as discussed below, each message sent from advertising node **160** (“**the given client**”) to ad selection node **140** (“**one or more processors**”) would have included a cookie (“**an identifier**”) that ad selection node **140** to identify advertising node **160**. (EX1002, ¶¶91-93.)

This is confirmed by Laidlaw, which explains that web cookies were a known technique to identify client computers in web-based systems: “[a] cookie is a sequence of binary information that a web server may send to a client system, and which the client system sends back to the web server with each subsequent request[.]” (Laidlaw, ¶0006; *see also id.* (“...web applications may use cookies... to identify a user.”).) A cookie thus provides “**an identifier**,” which can be used by the server to identify the client computer associated with a request and to keep track

of actions previously taken by the user. (EX1002, ¶93.) Petitioner’s mapping of a cookie to the claimed identifier is consistent with the ’898 patent, which expressly identifies a cookie as an exemplary identifier and refers to the same prior art cookie technique described above. (’898, 3:31-46; EX1002, ¶96.)

Rationale and Motivation to Combine (Nicholas with Laidlaw): It would have been obvious to combine Nicholas with Laidlaw, predictably resulting in the system of Nicholas in which, after the advertiser logs into ad selection node **140** by providing a username and password, a cookie is stored on advertiser node **160** that includes an identifier associated with the advertiser. (EX1002, ¶94.) Under the proposed combination, all subsequent requests and messages sent from the browser on advertiser node **160** to ad selection node **140** would have included the cookie (“**an identifier**”), which would have been used by ad selection node **140** to identify advertiser node **160**. Accordingly, when the advertiser submits its advertisement information via the user interface of Nicholas in Figure 6, the “**message**” received by ad selection node **140** would have included the cookie that identifies advertiser node **160** (“**the given client**”). (*Id.*)

This combination would have been straightforward, as cookies were commonly used to store identification information associated with the client device after the user logs into a website. (EX1002, ¶95.) This is confirmed by U.S. Patent No. 6,138,142 (Linsk) filed on December 20, 1996 (**EX1008**), cited to confirm basic

knowledge of a skilled artisan, which explains that “[f]or web sites that require registration, for example, a cookie may hold a user name and password.” (Linsk, 2:25-27; *see also id.*, 2:11-17 (describing cookies).) This is also confirmed by Robbin Zeff et al., *Advertising on the Internet* (2d ed. 1999) (EX1009), also cited to confirm basic knowledge, which explains that “cookies can also retain other information about users that might be useful,” and that “when a user registers at a Web site, the cookie can retain the user name and password so that registration is required only once.” (Zeff, 0020.) The fact that cookies were well-known for storing username and password information would have made the proposed combination straightforward, and as noted, Nicholas discloses that an advertiser may provide a user name and password. (Nicholas, ¶0068, Fig. 14; EX1002, ¶¶90, 95.)

Nicholas is an analogous reference in the same field of Internet-based targeted advertising, and would have been reasonably pertinent to problems facing the inventor. (EX1002, ¶97.) Laidlaw is also an analogous reference in the field of Internet-based communications, and reasonably pertinent to problems facing the inventor about using cookies to identify clients communicating with a server. (*Id.*)

A skilled artisan would have been motivated to combine Nicholas with Laidlaw because cookies were a well-known technique for identifying clients and for conveying identification information in messages from clients to web servers. (EX1002, ¶¶92, 95, 98.) Cookies were an industry standard technique of

maintaining session identification information for websites, and widely used in Internet advertising. (EX1002, ¶98; *see also* Zeff, e.g., 0019 (“There are clear benefits to advertisers and publishers to using cookies.”).) Cookies were the most popular technique among a limited number of known alternatives for maintaining state information, and superior to known alternatives. (EX1002, ¶¶98-99.)

Linsk provides an express motivation to use cookies as disclosed in Laidlaw by explaining that “[f]or web sites that require registration... a cookie may hold a user name and password.” (Linsk, 2:25-27.) This would have made Laidlaw particularly combinable with Nicholas because, as noted, Nicholas requires an advertiser to provide a username and password to access ad selection node **140**. (Nicholas, ¶0068, Fig. 14; EX1002, ¶¶100, 90.) Nicholas provides a separate motivation to use cookies by disclosing a feature in which the user can “Save my User Name and Password” through form element **273** (Fig. 14), which allows “the user to specify that the system automatically log them in on following occasions[.]” (Nicholas, ¶0068.) This feature was widely recognized as a textbook use case for cookies. (EX1002, ¶100; *see also* Zeff, EX1009, 0020.) It therefore would have been obvious to use a cookie to convey a username and password from advertiser node **160** to ad selection node **140** with each request, after the advertiser has logged-in. (EX1002, ¶100.) A skilled artisan would have also had a reasonable expectation

of success as Nicholas and Laidlaw rely on well-known technologies that would have been part of a skilled artisan's knowledge. (EX1002, ¶101.)

- (c) **“based on a message provided by a given client, generating, by the one or more processors, a webpage, wherein the generating comprises providing, via a graphical user interface of the webpage, a plurality of advertising buy options for selection by a given client accessing said webpage;” (1[c])**

Nicholas discloses generating a number of webpages providing a graphical user interface for the advertiser to specify buy options for the advertisement.

Figure 8 shows one example that depicts the ability to specify buy options that include the number of webpage impressions to purchase and the start and end dates/times for the advertisement:

Dizpersion log off threshold

accounts advertiser website newspaper

Broadcast Ad Ad Upload Coupon Quantity Channels Geographic Demographic Summary

Company Name
User Name
Street Address
City, State Zip

[Home](#)

Steps

1. Enter the Number of Impressions Purchased.
2. Select the Broadcast Start Date.
3. Select the Broadcast Start Time and Time Zone.
4. Select the Broadcast End Date.
5. Select the Broadcast End Time and Time Zone.
6. Press Submit.

Impressions 221

Start Date 222
Month ▼, Day ▼, 2001 ▼ 223

Start Time 224
1:00 ▼, AM ▼, Start Zone Eastern ▼

End Date 225
Month ▼, Day ▼, 2001 ▼

End Time 225
1:00 ▼, AM ▼, Time Zone Eastern ▼

2001 Dizpersion Corporation Contact Us Privacy Terms of Use

220

FIG. 8

(Nicholas, Fig. 8.)

“FIG. 8 illustrates one embodiment of a web-interface **220** for defining the quantity and/or duration that an ad should be displayed on ad selection node **140**.” (Nicholas, ¶0061.) For example, form input **221** allows the advertiser to “specify a number of impressions, or the number of times the advertisement will be delivered.” (*Id.*) Other input fields in Figure 8 allow the advertiser to specify a starting and ending time period for disseminating the advertisement. (*Id.*)

Figure 9 shows another exemplary webpage providing additional advertising buy options, including the particular websites for display of the advertisement:

FIG. 9

(Nicholas, Fig. 9.)

“FIG. 9 illustrates one embodiment of a web-interface 230 for defining the web sites or other network channels over which the advertisement may be displayed. In one embodiment the user may select any combination of sites and network channels available to ad selection node 140.” (Nicholas, ¶0062.)

Figures 8 and 9 both provide examples of “**generating, by the one or more processors [i.e. ad selection node 140] a webpage, wherein the generating comprises providing, via a graphical user interface of the webpage, a plurality of advertising buy options for selection by a given client [i.e., advertiser node 160] accessing said webpage.**” Figure 8 shows a webpage generated by ad selection

node **140** that provides a graphical user interface for selecting the number of impressions and the time period for the advertisement. (Nicholas, ¶0061.) Figure 9 shows a webpage generated by ad selection node **140** for selecting the websites for presenting the advertisement. (Nicholas, ¶0062.) Each webpage therefore provides “**a plurality of advertising buy options for selection**” by the advertiser through advertiser node **160**. (EX1002, ¶¶102-104.)

1[c] further specifies that the generating of the claimed webpage is “**based on a message provided by a given client.**” This limitation only requires that the generating be based on “**a message,**” not any particular message or the one previously recited in the claim. In any case, it would have been obvious that a message would have been provided to ad selection node **140** by advertiser node **160** in connection with the user logging into the ad selection node **140**, as discussed above. (EX1002, ¶¶94, 105; Nicholas, ¶0068.) That identification is the basis for all of the pages in Figures 6-9 above, as it would have been used to keep track of the advertiser as it progresses through the advertisement creation process. (EX1002, ¶94.)

Alternatively, Figures 8 and 9 were displayed based on having received a previous message from advertiser node **160** indicating the advertiser had completed making selections using Figure 7. (Nicholas, ¶0060 (“After the destination has been specified [in Figure 7], the user may proceed to the next step of the advertisement

definition process.”).) In any case, it would have been obvious that in any web-based system, a webpage delivered to the browser would have been generated and displayed based on “**a message**” from a client computer, *e.g.*, an HTTP request from the browser. (EX1002, ¶105.) The ’898 patent itself confirms that this was standard behavior of HTML webpages. (’898, 4:19-24; EX1002, ¶105.)

Petitioner also notes that 1[d] below specifies in more detail that the advertising buy options comprise “**at least one website**” and a “**predetermined number of impressions**,” which are provided through the two webpages shown in Figures 8 and 9 of Nicholas, as noted above and explained in more detail below. 1[c] recites “**generating, by the one or more processors, a webpage**,” but the reference to “**webpage**” using the singular article “**a**” does not present a patentable distinction over the prior art.

First, the law is clear that the claimed “**a webpage**” would ordinarily be understood as encompassing one or more webpages. *See, e.g., KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000). 1[d] thus does not exclude a method that generates multiple webpages for providing the claimed advertising buy options.

Second, even if the claim were interpreted to require providing the advertising options on a single webpage, this would have been obvious. (EX1002, ¶106.) Nicholas itself explains that “[t]he illustrated interfaces [of Figures 6-11] may be

omitted, [or] rearranged... without straying from the intent of defining the properties necessary or useful for distributing an advertisement online.” (Nicholas, ¶0057.) It would have been obvious to rearrange the interfaces in Nicholas such that a single webpage provided the advertising buy options for the “**at least one website**” and a “**predetermined number of impressions**,” for example, rearranging the options from Figure 8 so they appear on Figure 9, or vice versa. (EX1002, ¶106.) A skilled artisan would have been motivated to present these options on a single webpage to streamline the user interface. This would have been beneficial because “**the predetermined number of impressions**” for an advertisement may have been influenced by the identity of “**the at least one website**” where the advertisement will be presented, thus motivating a skilled artisan to present both on the same page. (*Id.*) Additionally, presenting options on one page versus multiple pages was a trivial user interface design decision routinely confronted by skilled artisans, and presenting multiple options on a single page had known advantages. (EX1002, ¶¶106-107 (also citing EX1014, pp.238-239).) These benefits would have included streamlining the user interface, reducing the need for navigation across pages, and allowing the advertiser to view and weigh the multiplicity of advertising options simultaneously thus enabling easier review and adjustment. (EX1002, ¶107.)

- (d) **“obtaining, by the one or more processors, via an input in the graphical user interface, a selection of one or more of the advertising buy options, wherein the selected one or more advertising buy options comprise at least one website of the respective websites and a predetermined number of impressions of the advertising material for users visiting the at least one website;” (1[d])**

This limitation was largely covered in the discussion of 1[c] above. As noted, ad selection module **140** obtains the advertiser’s selection through a web interface that presents the advertising buy options. The buy options comprise **“at least one website of the respective websites,”** as noted above. (Nicholas, ¶0062.)

The advertising buy options also comprise **“a predetermined number of impressions of the advertising material for users visiting the at least one website,”** as noted above. (Nicholas, ¶0061.) Nicholas further explains that the specified number of impressions provides a maximum number such that, “should the advertisement be served up to the number of impressions prior to the end time, it may automatically stop being served.” (*Id.*) The number of impressions is **“predetermined”** because the number of impressions was determined by the advertiser by specifying the number through the graphical interface of Figure 8, which occurred before ad selection node **140** obtained the advertiser’s selection from advertiser node **160**. (EX1002, ¶109.)

Nicholas also discloses **“obtaining”** the advertising buy options **“by the one or more processors, via an input in the graphical user interface.”** This is

because, as explained, ad selection node **140** (“**one or more processors**”) obtains the advertiser’s selection of buy options from advertiser node **160** through the webpage graphical user interface discussed above. As noted for 1[c], to the extent the claim requires that both of the buy options be presented on a single webpage, this would have been obvious. (EX1002, ¶¶106-107, 110.)

- (e) “**generating, by the one or more processors, on a database accessible to the one or more processors, a repository for advertising revenue based on the selection;**” (1[e])

Nicholas discloses that ad selection node **140** (“**the one or more processors**”) includes at least one database (*e.g.*, DB4, DB5) for storing information about advertisers and their advertisements. (Nicholas, ¶¶0047-0048, Fig. 2.) Nicholas further discloses that databases are used to track revenue and billing relating to advertisements. (Nicholas, ¶0150 (“The database and software solution may automatically generate billing statements for advertisers, publications and media companies registered with ad selection node **140**.”).)

Nicholas does not appear to expressly disclose that ad selection node **140** generates a “**repository**” on the database for advertising revenue based on the selection. But these details would have been trivial and well-known.

These details are disclosed by Mayadas, which like Nicholas, describes a system for allowing an advertiser to create advertising campaigns for websites via the Internet. Mayadas Figure 2 outlines the process of creating an advertising

campaign:

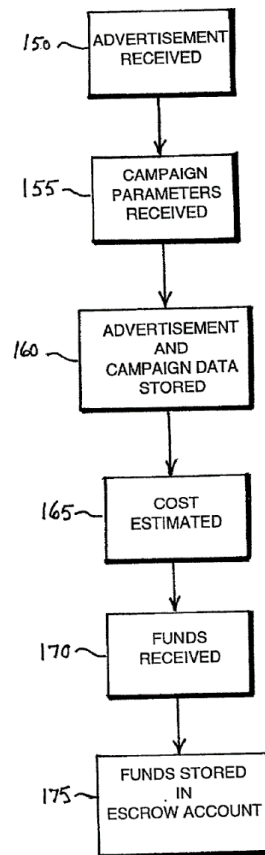


FIG. 2

(Mayadas, Fig. 2.) Figure 2 shows the method of operation of “a targeted message sponsor,” such as an advertiser, “submitting a targeted message to the system using, as an example, an advertising campaign on the World Wide Web.” (Mayadas, ¶0028.) Block **150** shows the system receiving from the advertiser an advertisement, and in block **155**, receiving parameters for the advertising campaign. (Mayadas, ¶0029.) These parameters include “length of time, publishers or type of publisher, number of hits, group of users, etc.” (Mayadas, ¶0029.) These parameters are similar to the selections received by advertisers in Nicholas as described for 1[d]

(e.g., websites and number of impressions). The term “publisher” in Mayadas includes a website. (Mayadas, e.g., ¶0034 (“The publisher is a web site and the targeted message is an advertisement.”).)

Next, at block **160**, the cost of publishing the advertising campaign is estimated based on the received parameters. (Mayadas, ¶0029.) “The system receives a block of funds from the advertiser based on the estimated cost of the advertisement campaign to the system, block **170**. The block of funds from the advertiser is placed in an escrow account ready for distribution in conjunction with serving the advertisement through the web sites, block **175**.” (*Id.*; *see also id.*, ¶0041 (“The advertiser must then put funds into an escrow account to support the maximum size of campaign selected.”).)

Advertisers are not the only parties in Mayadas that have accounts for receiving money. With respect to the publishers (website operators) whose websites display the advertisements, “[i]n order to receive payment from the central system... target message publishers grant access to an account of some type. This could be a regular bank account,” among other examples. (Mayadas, ¶0041.) “Each time the advertisement is served and the specified action is taken by the consumer, the advertiser’s escrow account is debited for the one action.” (Mayadas, ¶0043; *see also id.*, ¶0037 (“... the publisher is remitted payment for successfully serving the advertisement to a member of the target audience, block **330** [Fig. 4].”).)

Mayadas therefore discloses a “**repository**” in two separate and independent ways. First, the claimed “**repository**” may correspond to an *advertiser* account fund, which is formed when the money received from the advertiser is placed in the advertiser escrow account at block 175 above. (Mayadas, ¶¶0029, 0041.) Second, the claimed “**repository**” may correspond to a *publisher* (website operator) account fund, which is formed when money is received by the publisher’s account for display of advertisements on its site. (Mayadas, ¶¶0037, 0041, 0043.) Both of these ways independently disclose a repository “**for advertising revenue,**” because both funds hold money that provides revenue for the display of advertisements. (Mayadas, ¶¶0038 (“Advertisers place funds in an escrow account. An amount from the escrow account is paid out each time an advertisement is served.”), 0015 (“When a user interacts with a targeted message... the publisher... [is] compensated from the escrow account.”), 0034-0037, 0043.)

The claimed generation of the repository in Mayadas also occurs “**based on the selection**” in both examples, at least because the receipt of money into each account and the amount are based on the options for the advertisement (*e.g.*, number of impressions, selected websites) specified by the advertiser. (Mayadas, ¶¶0029 (“The advertiser establishes parameters for the advertising campaign, such as... publishers or type of publisher[.]”), 0041 (“When an advertiser sets up an advertisement campaign, the advertiser gives it a maximum size: days, number of

impressions, etc. The advertiser must then put funds into an escrow account to support the maximum size of campaign selected.”); EX1002, ¶115.)

Petitioner’s mapping of “**repository**” from Mayadas is consistent with the ’898 patent, which does not use “repository” outside the claims. But dependent claim 3 further specifies that “**the repository comprises a fund.**” The ’898 patent further explains that the fund can comprise a bank account for holding advertising revenue. (’898, 5:41-44.) The ’898 patent thus confirms that the claimed repository can include a fund that is generated upon the placement of money into an account—the same process described in Mayadas. (Mayadas, ¶0038; EX1002, ¶116.)

With respect to the step of “**generating... a repository for advertising revenue,**” in the example above in which the repository corresponds to the *advertiser’s* account fund, the generating step occurs when the money is received from the advertiser and then placed into the escrow account. (Mayadas, ¶¶0029, 0038.) In the second example in which the repository corresponds to the *publisher’s* account fund, the generating step occurs when money is received in response to advertisements being displayed on the publisher’s site. In either case, this qualifies as “**generating**” the claimed repository because the fund came into existence when funds were received and placed into the respective account. (Mayadas, ¶¶0029, 0038, 0041, 0043.) In simpler terms, an account holding no money is not yet a fund, so the claimed “**repository**” comes into existence after monies are received and

placed into the account. (EX1002, ¶117.)

Rationale and Motivation to Combine (Nicholas with Mayadas): It would have been obvious to combine Nicholas with Mayadas, predictably resulting in ad selection node **140** of Nicholas obtaining payment from the advertiser and then generating, on a database accessible to ad selection node **140**, the claimed repository. Under the proposed combination, the claimed repository corresponds to either the advertiser's escrow account fund or the publisher's account fund, which, in either case, receives money that represents revenue for presentation of advertising impressions. (EX1002, ¶118.)

The proposed combination would have been implemented in straightforward ways. (EX1002, ¶119.) In one example, ad selection node **140** in Nicholas would have created an advertiser escrow account or publisher account in one or more of its databases (DB4, DB5, or DB6) when the funds needed be placed into these accounts. Nicholas itself confirms that databases are used to track revenue and billing relating to advertisements. (Nicholas, ¶0150.) In a concrete implementation, for example, ad selection node **140** in Nicholas would have generated database records for the advertiser and publisher accounts when money needed to be placed into those accounts. This is a well-known technique of "dynamic" storage management, which would have been known to even beginning computer programmers, in which computer records are created, and memory for them is allocated, only when the

computer needs to store data in them. (EX1002, ¶119 (citing **EX1016**, § 3.7, p.111 (“Keeping track of and allocating storage that is needed during the execution of a program is called *dynamic storage management*.”) (emphasis in original)).) This is often distinguished from “static” storage in which empty records are created in advance to serve as placeholders for storage when the computer later needs to store information in them. (EX1002, ¶119.) The choice between static and dynamic resource management was (and remains today) a classic dichotomy in computer science. This choice would have presented a routine implementation detail, with the dynamic approach presenting known advantages. (*Id.*)

Under the proposed combination, therefore, it would have been obvious to “generat[e], by the one or more processors [*i.e.*, ad selection node **104**], on a database accessible to the one or more processors [*i.e.*, a database accessible to ad selection node **104**], a repository for advertising revenue [*i.e.*, advertiser or publisher account fund containing received money].” (EX1002, ¶120.) Generation of the repository would also have been “**based on the selection**,” as claimed, because it would have been based on the advertising buy options in Nicholas (*e.g.*, number of impressions, selected websites) selected by the advertiser in limitation 1[d], and these would have been used in the proposed combination to estimate the money needed for the fund and the websites on which advertising impressions will be presented, as discussed previously. (Mayadas, ¶¶0029, 0041; EX1002, ¶120.)

Like Nicholas, Mayadas is an analogous reference in the field of Internet-based advertising and would have been reasonably pertinent to problems facing the inventor. (EX1002, ¶121.)

A skilled artisan would have been motivated to combine Nicholas with Mayadas to provide a means of keeping track of the revenue provided to websites that display advertisements. (EX1002, ¶¶122-124.) Nicholas in multiple places makes clear that its system is designed to provide advertising revenue to website operators when advertisements are displayed on their websites. (EX1002, ¶122.) For example, Nicholas “provides a method for dividing the revenue earned through advertisement delivery,” explaining that “the revenue earned may vary based on,” among other things, the “publication or media company that sold the advertisement.” (Nicholas, ¶0150.) Figure 18 shows a display relating to revenue provided to various publishers (*e.g.* websites) that display advertisements:

The screenshot shows the Dizpersion website interface. At the top, there is a header bar with the site name 'Dizpersion' and links for 'log off' and 'threshold'. Below this is a navigation bar with links for 'accounts', 'advertiser', 'website', and 'newspaper'. A secondary navigation bar includes 'Broadcast Ad', 'Ad Upload', 'Coupon', 'Quantity', 'Channels', 'Geographic', 'Demographic', and 'Summary'. The main content area is divided into two sections: 'Company Name' with fields for 'User Name', 'Street Address', 'City, State Zip', and a 'Home' link; and 'Publication Administration' with a 'Create New Publication' link. Below these is a table with the following data:

Publication Name	Publication Revenue %	Banner CPM	Tower CPM	Pop-up CPM	Contract Begin Date	Contract End Date
Independent-Register	50.0	\$35.00	\$45.00	\$60.00	11/01/01	05/01/01
Dizpersion	100.0	\$1.00	\$1.00	\$1.00	11/01/01	12/30/05

At the bottom of the page, there is a footer bar with '2001 Dizpersion Corporation' on the left and 'Contact Us', 'Privacy', and 'Terms of Use' on the right.

320

FIG. 18

(Nicholas, Fig. 18 (highlighting added).) Figure 18 above displays “information relating to the advertisers, publications or media companies having access to ad selection node 140.” (Nicholas, ¶0087.) “This information may include contract information such as the determined revenue split, cost per thousand impressions (CPM), and beginning and end dates.” (*Id.*) In the example above, the “Independent-Register” would receive 50% of revenue from the publications of advertisements on that site, which is computed as \$35 for Banner CPM, \$45 for Tower CPM, or \$60 for Pop-Up CPM. (*Id.*)

Nicholas therefore fully contemplates that website operators will receive revenue when advertisements are displayed on their websites. (EX1002, ¶123.) It

would have been obvious to consult Mayadas, which provides critical details about how to obtain funding from the advertiser and then use it to provide revenue to website operators when the advertisement impressions occur. It would have been obvious that, in order for ad selection node **140** to provide revenue to website operators, it would have obtained funds from the advertiser from which to pay those website operators. A skilled artisan would have been motivated to combine Nicholas with Mayadas in order to facilitate the revenue-sharing techniques disclosed in Nicholas, and to ensure that ad selection node **140** has adequate funds to compensate website operators for advertising impressions. (EX1002, ¶123.) A skilled artisan would have also had a reasonable expectation of success and could have implemented the combination using well-known techniques. (EX1002, ¶124.)

- (f) **“based on obtaining the selection, populating, by the one or more processors, the advertising material on the at least one website, wherein the populating comprises placing the advertising material within web property content of the at least one website;” (1[f])**

Nicholas discloses an advertisement delivery technique in which an advertisement is delivered to a user when the user accesses a website (*e.g.*, content provider node **130**). In this technique, HTML tags are embedded into the webpage served by the content site that cause the web browser via a URL to request the advertisement from the ad selection node **140** (at ads.dizperson.com):

FIG. 25 illustrates a flowchart **410** representative of a method in accordance with the present invention for

serving an ad when the content is requested from content provider node **130** (FIG. 1). One example of such a process would include accessing a web page over the Internet. User accesses a website on the Internet by making a network request to content provider node **130** during a stage **S412** of the flowchart **410**...

In the content received from content provider node **130** is code that represents a request for a banner ad during a stage **S414** of the flowchart **410**, such as:

```
<iframe height=60 src="http://ads.dizpersion.com/adservice.aspx?sid=9&at=9"
width=468 frameborder=0 marginwidth=0 marginheight=0 hspace=0 vspace=0
scrolling="no" bordercolor="#000000"></iframe>
```

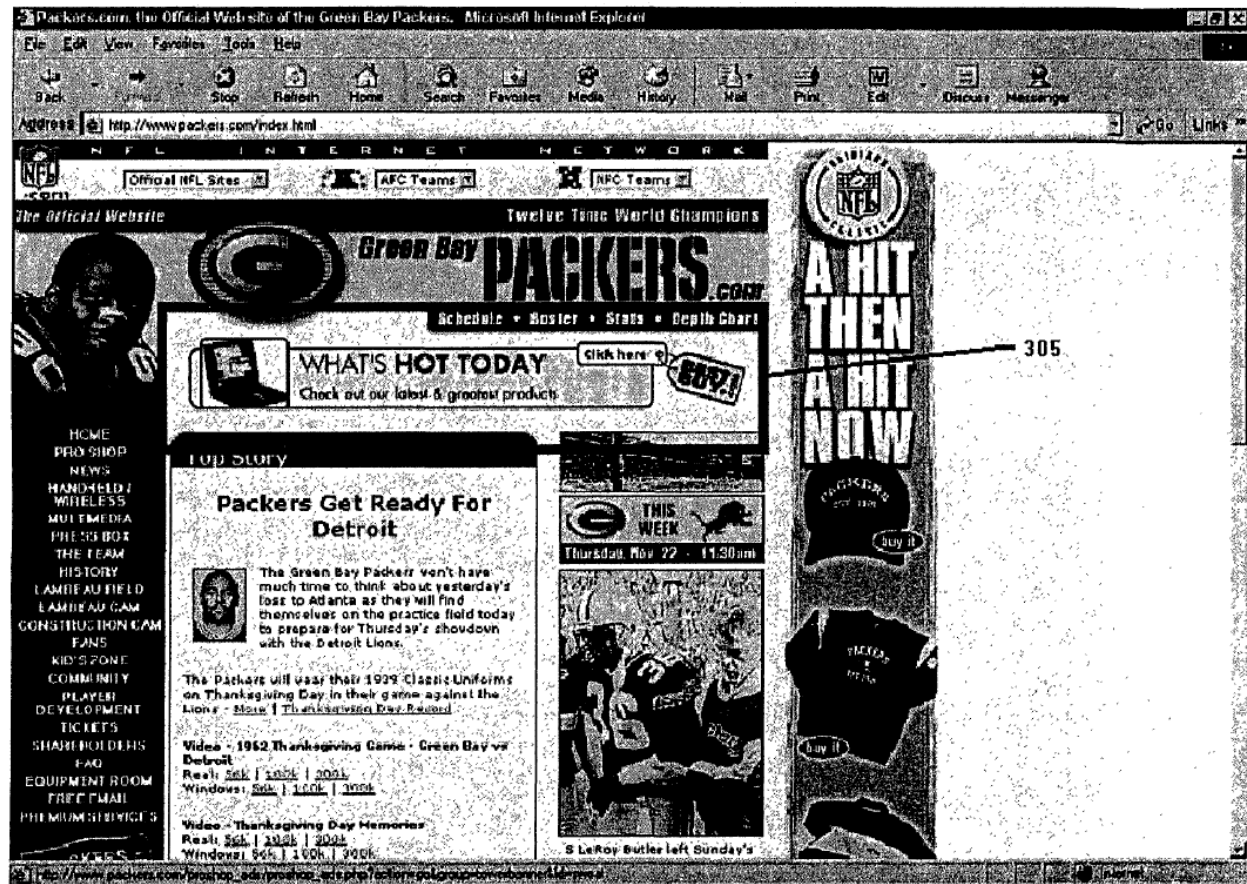
This code requests an ad from an ad selection node **140** found at the network address represented by <http://ads.dizpersion.com>.

(Nicholas, ¶¶0102-0103.)

In plain English, the passage above states that content provider node **130** (the “**at least one website**” where advertisements will be shown) provides HTML code that causes the browser to issue a request for advertising material from the ad selection node **140** (“**the one or more processors**”), which in this case, is located at ads.dizpersion.com. (EX1002, ¶126.) The advertising material will then be populated within the web property (*e.g.*, banner advertisement location on the webpage) by being presented to the user when the website is displayed.

This is also illustrated in Figure 3 of Nicholas’s incorporated ’297 provisional application (*see* Nicholas, ¶0001), which shows an example website page populated with advertising material **305** (Best Buy) within the site’s web property content:

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(EX1013, Fig. 3; *see also id.*, 004:11-12.)

Populating the advertising material in Nicholas is also “**based on obtaining the selection**” because ad selection node **140** selected an advertisement for content node **130** based on the selections received from the advertiser. (Nicholas, ¶¶0103, 0062.) For example, as explained for 1[d], “**the selection**” by the advertiser includes “the web sites or other network channels over which the advertisement may be displayed.” (Nicholas, ¶0062.) It would have been obvious that the ad selection node **140** would have selected an advertisement for delivery to the user based, at least in part, on the selection of the particular website(s) where the advertisement

will be displayed. (EX1002, ¶127.) As also noted for 1[d], “**the selection**” in Nicholas also includes “a number of impressions, or the number of times the advertisement will be delivered.” (Nicholas, ¶0061.) It would have been obvious that ad selection node **140** would have selected the advertisement based at least in part on whether the advertiser had specified a positive (and non-zero) number of impressions for the advertisement in limitation 1[d], and whether unused impressions remain available for displaying the advertisement on the website. (EX1002, ¶127.) Nicholas explains, as noted, that the specified number of impressions provides a maximum number such that, “should the advertisement be served up to the number of impressions prior to the end time, it may automatically stop being served.” (Nicholas, ¶0061; *see also* EX1002, ¶127.)

Petitioner notes that the claim recites populating the advertising material “**based on obtaining the selection**,” which does not exclude a system that uses the claimed selection—along with other information—in populating advertising material on one or more websites. The ’898 specification, for example, describes a target audience for an advertisement being determined based on user demographics, such as age, sex, and interests of the audience. (’898, 4:54-5:8, 8:29-52.) Nicholas similarly discloses using demographic and/or geographic information to select the advertisement for delivery to a user. (Nicholas, ¶0062.) It would have been obvious that this information would have been used in addition to “**the selection**” made by

the advertiser, including the particular website(s) where the advertisement will be displayed as explained. In other words, this claim limitation does not preclude other factors, in addition to “**the selection**,” from being used to identify the advertisement to be delivered. (EX1002, ¶128.)

- (g) “**monitoring, by the one or more processors, a number of impressions of the advertising material provided to users accessing the web property content displayed on the at least one website;**” (1[g])

Nicholas also discloses the claimed monitoring step. As explained for 1[d], the advertiser can specify the “number of impressions, or the number of times the advertisement will be delivered.” (Nicholas, ¶0061.) As further explained, Nicholas discloses a mechanism for ceasing delivery of advertising impressions once the specified number has been reached. For example, “should the advertisement be served up to the number of impressions prior to the end time, it may automatically stop being served.” (Nicholas, ¶0062.) It would have been obvious that, in order for ad selection node **140** to stop delivering advertisements once the number of impressions has reached the number specified by the advertiser, ad selection node **140** would have monitored the number of impressions. (EX1002, ¶131.) Indeed, Nicholas expressly discloses that ad selection node **140** creates a record indicating the number of impressions that occurred during the time period specified by the advertiser. (Nicholas, ¶¶0114 (“... advertiser record AR_x further includes a unique identifier for the advertiser... [and] the number of impressions made in this

timeframe....”); 0124 (“a number of impressions occurring”).) Monitoring the number of impressions for an advertisement was (and remains today) a basic and fundamental aspect of Internet-based advertising. (EX1002, ¶129.)

Nicholas therefore discloses and renders obvious “**monitoring... a number of impressions of the advertising material provided to users accessing the web property content displayed on the at least one website.**” The monitoring is done “**by the one or more processors,**” *i.e.*, by ad selection node **140**. This is because the advertising record in Nicholas that contains the number of impressions is made by “module **142**” (Nicholas, ¶0114), which is part of ad selection node **140**. (Nicholas, ¶0112 (“An advertiser indexing module 142 is a unique software package of server 141....”), 0047 (“Referring again to FIG. 1, ad selection node 140 includes one or more servers 141 for conventionally communicating with the other nodes of telecommunication system.”); EX1002, ¶130.)

- (h) “**determining, by the one or more processors, whether an impression of the advertising material is valid, wherein the impression is valid based on a predetermined impression tracking system;**” (1[h])

Though clearly used in its system, Nicholas does not expressly disclose the step of determining whether an impression is valid, but this step was well-known and disclosed by Error.

Error discloses a “single-pixel” image technique for determining that an impression is valid. The idea is straightforward; a URL link for a single pixel (or

transparent) image file is embedded onto a webpage that is delivered to a web browser. (EX1002, ¶133.) The image is not meant to be viewed and will likely not be visible to the user. After the user's browser receives the webpage, it uses the embedded URL link to request the single-pixel image from a server. The receipt of that request by the server provides an indication that the user's web browser *actually* received the webpage. (*Id.*) The Background section of Error explains:

One commonly used technique for third-party collection of usage data is to include, in each web page to be tracked, a small image, such as a single-pixel image that is not intended to be noticed by the user...

When a user navigates to a web page, the web page's HTML code causes the user's browser to send a request for the single-pixel image. The tracking server receives the request and logs the request as a user visit to the web page. It is known in the art to embed identifier codes within the image requests, so that the tracking server can detect individual users and discern additional identifying information about each user.

(Error, 1:36-54; *see also id.*, 2:6-21 (explaining that when the tracking server receives a request for the single-pixel image, “tracking server 106 records the occurrence of a ‘hit’ to the web page.”).)

Error thus discloses “**a predetermined tracking system**” for determining that a webpage was properly delivered to the browser. This is because Error discloses a tracking system that receives a request from a web browser for a single-pixel image embedded in a webpage, and that uses that request to determine that the webpage

was properly delivered to the user’s web browser—thus qualifying as a valid impression. (EX1002, ¶134.) This mapping of the prior art is consistent with the ’898 patent, which relies on the same technique described in Error for using a single-pixel (1x1) image tracking asset to determine if an advertising impression was valid. (’898, 9:49-61.) This further confirms that 1[h] recites nothing more than a technique that was already known. (EX1002, ¶135.)

Rationale and Motivation to Combine (Nicholas, Laidlaw and Mayadas with Error): It would have been obvious to combine Nicholas, Laidlaw, and Mayadas with Error, predictably resulting in ad selection node **140** of Nicholas (which performs the function of the “tracking server” in Error) determining whether an impression was valid by using the single-pixel technique (“**a predetermined tracking system**”) described above. (EX1002, ¶136.) Under this combination, an advertisement delivered by ad selection node **140** would have included a single-pixel image directing the user’s web browser to contact ad selection node **140** to confirm that the advertisement had in fact been delivered to the end user’s web browser, *i.e.*, that the impression was “**valid**” as claimed. (*Id.*) Implementation of the proposed combination would have been exceedingly straightforward, as Nicholas confirms that advertising content served by ad selection node **140** may be an HTML webpage or portion of such a page. (Nicholas, ¶0109; EX1002, ¶136.)

It would therefore have been obvious to include, in the HTML for advertising

material served by ad selection node **140**, a URL that refers to a single-pixel image. (EX1002, ¶136.) Error is an analogous reference in the field of monitoring Internet traffic and would have been reasonably pertinent to problems facing the inventor in determining whether an impression is valid. (EX1002, ¶137.)

A skilled artisan would have been motivated to bring in Error. Error itself states that the use of single-pixel image was a “commonly used technique” for tracking actual receipt of a webpage by a user. (Error, 1:36-54.) A skilled artisan would have been motivated to use this technique to enable ad selection node **140** to confirm that an advertisement had, in fact, been delivered to the end user’s web browser. (EX1002, ¶138.) Because the advertiser in Nicholas under the proposed combination is paying for ad impressions, the technique in Error would have improved the system by ensuring that advertisers only pay for ads that are actually delivered to end users. (*Id.*) A skilled artisan would have also had a reasonable expectation of success, as the relied-upon techniques in Error were well-known and straightforward, as discussed. (EX1002, ¶139.)

- (i) **“determining, by the one or more processors, that the number of valid impressions is greater than or equal to the predetermined number of impressions;” (1[i])**
- (j) **“upon determining a number of valid impressions are met, ceasing, by the one or more processors, the populating of the advertising material on the at least one website; and” (1[j])**

As explained for 1[g], after the advertisement has been presented on the

website, a record is maintained that indicates the number of impressions for the advertisement in the specified timeframe, and the maximum number of impressions.

(Nicholas, ¶0114 (“In one embodiment of stage S438, advertiser record AR_X further includes... the number of impressions made in this timeframe... and the maximum number of impressions that may be made in each recognized timeframe.”).)

Nicholas further explains that delivery of an advertisement may cease once the number of impressions specified by the advertiser (“**the predetermined number of impressions**”) has been reached:

In one embodiment, the user may specify only the number of impressions. In one embodiment the user may specify only a start and end time during which an ad will be broadcast. In one embodiment the user may select both the number of impressions and the start and end times. In this embodiment, should the advertisement be served up to the number of impressions prior to the end time, it may automatically stop being served.

(Nicholas, ¶0061.)

It therefore would have been obvious that ad selection node 140 (“**the one or more processors**”) would have determined that the number of impressions is greater than or equal to the predetermined number of impressions specified by the advertiser, and if so, would have ceased populating the advertising material on the websites selected by the advertiser. (EX1002, ¶141.) And under the combination of Nicholas with Error, as discussed, it would have been obvious to apply these steps only to “**valid**” impressions, such that this limitation occurs in Nicholas only with

respect to valid impressions. (EX1002, ¶¶142, 138.)

- (k) **“based on determining a number of valid impressions are met, electronically collecting, by the one or more processors, a share of the advertising revenue to be transmitted to the web property content owner.” (1[k])**

Under the proposed combination of Nicholas and Mayadas, a share of the advertising revenue is transmitted to the web property content owner (publisher):

The targeted message is published on one or more publishers, according to the parameters set by the message sponsor. Also, the message is published to selected users when they interact with one of the selected publishers. When a user interacts with a targeted message, such as clicking on the targeted message display, the publisher, the user, and any data aggregator involved in targeting the message are compensated from the escrow account.

(Mayadas, ¶0015.) As noted, the “publisher” in Mayadas corresponds to the owner of the website where the advertisement is delivered. (Mayadas, ¶0034.)

The proposed combination of Nicholas and Mayadas therefore renders obvious **“electronically collecting, by the one or more processors,”** *i.e.*, by ad selection node 140 in Nicholas, **“a share of the advertising revenue to be transmitted to the web property content owner,”** *i.e.*, a share of the escrow fund established by the advertiser. (EX1002, ¶144.) As noted, Nicholas itself discloses **“a method for dividing the revenue earned through advertisement delivery,”** explaining that “the revenue earned may vary based on,” among other things, the “publication or media company that sold the advertisement.” (Nicholas, ¶0150.)

The step of electronically collecting can occur, for example, when money is obtained from the advertiser escrow account for transmission into the publisher's account. (Mayadas, ¶¶0043 (“Each time the advertisement is served and the specified action is taken by the consumer, the advertiser's escrow account is debited for the one action.”), 0037 (“... the publisher is remitted payment for successfully serving the advertisement to a member of the target audience, block **330** [Fig. 4].”).) Alternatively, with respect to the publisher, it would have been obvious to perform the step of electronically collecting when the publisher accesses the advertising system in Nicholas to arrange for transfer of money in its publisher account into another account (*e.g.*, the publisher's general bank account held outside the advertising system). (EX1002, ¶144.)

The proposed combination also renders obvious that the step of electronically collecting occurs “**based on determining a number of valid impressions are met,**” as claimed. This limitation, like the preceding one, merely recites “**a number**” of valid impressions and does not appear to require a particular number of impressions, or “**the predetermined number of impressions**” received by ad selection node **140** as described for limitation 1[d]. Nevertheless, it would have been obvious to carry out this claim limitation in several straightforward ways.

First, it would have been obvious to perform the step of electronically collecting after each advertising impression is delivered to the user, which is directly

suggested by Mayadas. (Mayadas, *e.g.*, ¶¶0038 (“Advertisers place funds in an escrow account. An amount from the escrow account is paid out each time an advertisement is served.”), 0043 (“Each time the advertisement is served and the specified action is taken by the consumer, the advertiser’s escrow account is debited for the one action.”).) Under this implementation, “**a number of valid impressions**” would correspond to a single valid impression and would trigger the claimed electronic collection. (EX1002, ¶146.)

Second, it would also have been obvious to perform the step of electronically collecting after a larger number of valid impressions had completed, such as after each group of 1,000 advertising impressions or after all advertising impressions were delivered. (EX1002, ¶147.) Nicholas discloses, as was well-known, that advertisements were commonly priced based on the cost per one thousand impressions, commonly known as “CPM.” (Nicholas, ¶0087.) This is shown in Figure 18, which shows a screen display relating to revenue provided to various publishers (*e.g.* websites) that display advertisements:

201

202

Dizpersion

log off threshold

accounts advertiser website newspaper

Broadcast Ad Ad Upload Coupon Quantity Channels Geographic Demographic Summary

Company Name
User Name
Street Address
City, State Zip
Home

Publication Administration
[Create New Publication](#)

Publication Name	Publication Revenue %	Banner CPM	Tower CPM	Pop-up CPM	Contract Begin Date	Contract End Date
Independent-Register	50.0	\$35.00	\$45.00	\$60.00	11/01/01	05/01/01
Dizpersion	100.0	\$1.00	\$1.00	\$1.00	11/01/01	12/30/05

2001 Dizpersion Corporation
Contact Us Privacy Terms of Use

320

FIG. 18

(Nicholas, Fig. 18 (highlighting added); *see also id.*, ¶0087.)

It therefore would have been obvious to perform the step of electronically collecting after 1,000 valid impressions were delivered via a website, or after the predetermined number of impressions selected by the advertiser in limitation 1[d] have been delivered (in either case after “a number of” valid impressions). (EX1002, ¶148.) For example, if an advertiser purchased a certain number of CPM packages, it would have been obvious to have performed the electronically collecting step after delivery of each, or all, CPM packages. These two intervals would have been among a small number of potential times when the electronic collection from

the advertiser would naturally have been expected to occur, and would have beneficially reduced the multiple billing and collection steps required to collect revenue after delivery of each impression. (*Id.*) These collection frequencies are directly suggested by CPM-based pricing disclosed in Nicholas, which is based on packages of 1,000 impressions. A skilled artisan would have been motivated to perform the step of electronically collecting after each CPM package of impressions was delivered, or after all CPM packages of impressions were delivered, in order to improve the performance and simplify the system by reducing the number of times the collection step must be performed. (EX1002, ¶¶148-149.)

Under any of these approaches, based on the combination of Nicholas with Error, it would have been obvious to perform the step of electronically collecting only based on “**valid**” impressions, so the advertiser is charged and the web property content owner is compensated only upon actual delivery of advertising impressions to the web browser, as explained for 1[i]. (EX1002, ¶¶133-139, 150.)

2. Claim 2: “The computer-implemented method of claim 1, wherein the advertising materials are selected from the group consisting of: a banner ad, a pop-up, a text advertisement, and a rich media advertisement.”

Nicholas discloses that the advertising material can be a banner ad, a pop-up, text, rich media, among others. (Nicholas, ¶¶0059 (“Advertisement types may include banner, tower, pop-up, pop-under, SMS message, or any other type of advertisement known in the art.”), 0109 (“The content served by ad selection node

140 may be in the form of a portion of or a complete hypertext markup language (HTML) web page, a portion of or a complete web page containing dynamic content as might be provided by a technology such as Flash... or any other form of advertising on a consumer networked site or service known in the art.”.) The reference to “Flash” in Nicholas refers to Macromedia Flash (and later known as Adobe Flash), a well-known technology for providing rich media content to the user such as videos or animations. (EX1002, ¶151.)

3. Claim 3: “The computer-implemented method of claim 1, wherein the repository comprises a fund.”

As explained for 1[e], the repository comprises a fund either for the advertiser held in the advertiser escrow account, or for the publisher (website operator) held in the advertiser account. (EX1002, ¶¶115-116, 152.)

4. Claim 4: “The computer-implemented method of claim 1, wherein the electronically collecting comprises applying the electronic revenue from the selected one or more advertising buy options, to the repository.”

As explained for claim 1, under the combination of Nicholas and Mayadas, electronic revenue from the advertising impressions is obtained from the repository and provided to website owners. (Mayadas, ¶¶0038 (“Advertisers place funds in an escrow account. An amount from the escrow account is paid out each time an advertisement is served.”), 0015 (“When a user interacts with a targeted message... the publisher... [is] compensated from the escrow account.”), 0034-0037.)

Accordingly, the step of electronically collecting in limitation 1[k] comprises “**applying the electronic revenue... to the repository**,” because the repository is used to pay out or receive the electronic revenue. As explained for limitation 1[e] above, the claimed repository can be mapped to either the *advertiser* or *publisher* account fund. In the case of the advertiser account fund, the amount in the advertiser escrow account is reduced when an advertising impression is delivered. (Mayadas, ¶0043.) Conversely, in the case of the publisher (website operator) account fund, the amount in the publisher’s account is increased in response to delivery of the advertising impression. (Mayadas, ¶¶0015, 0037; EX1002, ¶153.) In either case, the step of electronically collecting in limitation 1[k] would have comprised applying the electronic revenue to the claimed repository. (EX1002, ¶153.)

This is consistent with the plain and ordinary meaning of the word “**apply**” in the context of databases, which is the appropriate context here considering that 1[e] requires “**generating**” the repository “**on a database**.” The word “**apply**” in the database context is commonly understood as an act of modifying a value from a database and storing the modified value. (EX1002, ¶154.) For example, if a value in a database is modified and then stored in the database, this is commonly referred to as “**applying**” the change to the database. Under the proposed combination, therefore, when the electronically collecting step is performed, electronic revenue is provided to a website owner as revenue in response to an impression, resulting in a

reduction in the balance available in the advertiser's escrow account, and an increase in the amount available in the publisher account. In either case, the electronic revenue is “**appl[ied]**” to the repository when the repository is updated to reflect the current amount of money in the account. (*Id.*)

The electronic revenue is also “**from the selected one or more advertising buy options,**” because as explained for 1[d], the advertising impressions that generated the revenue are based on the advertising buy options (*e.g.* number of impressions, target websites) selected by the advertiser. These two options, as explained, directly affect the revenue to be paid out of the escrow account because they determine the number of impressions (and hence how much will be spent), as well as the identity of the website owners who will be paid. (EX1002, ¶¶155, 115.)

5. Claim 5: “The computer-implemented method of claim 1, wherein the data comprises a project type.”

Nicholas also discloses that “**the data**” of claim 1 (*i.e.*, “**the data comprising advertising material to populate on one or more websites**”) can comprise a project type. For example, the claimed project type can take the form of a coupon advertisement designed to promote a particular business. (Nicholas, ¶0060.)

For example, the advertiser can specify through the user interface of Figure 7 that the data will comprise a coupon:

The screenshot shows the Dizpersion website interface. At the top, there is a header bar with the logo "Dizpersion" (labeled 201) and navigation links "log off" and "threshold". Below the header is a secondary navigation bar with links "accounts", "advertiser", "website", and "newspaper". A third navigation bar contains tabs: "Broadcast Ad", "Ad Upload", "Coupon" (labeled 202), "Quantity", "Channels", "Geographic", "Demographic", and "Summary".

The main content area contains a form for creating a coupon. It starts with input fields for "Company Name", "User Name", "Street Address", and "City, State Zip". Below these is a "Home" link with a house icon. To the right of the form is a "Steps" section with four numbered steps:

1. Define Outcome of Click-through. This step includes two radio button options: "Coupon" (labeled 211, which is highlighted in yellow) and "URL Destination". Below the "URL Destination" option is an empty text input field.
2. Retrieve Coupon. This step includes a "File" label followed by an empty text input field and a "Browse..." button (labeled 212).
4. Press Submit. (Step 3 is missing from the list)

At the bottom of the form is a "Submit" button (labeled 213). The footer of the page contains the text "2001 Dizpersion Corporation" and links for "Contact Us", "Privacy", and "Terms of Use".

210

FIG. 7

(Nicholas, Fig. 7 (highlighting added).) “If the user selects a coupon destination, the user may specify an image, or any other file type known in the art, for use in creating the coupon using form element **213**.” (Nicholas, ¶0060.)

Figure 13 in Nicholas shows an exemplary advertising coupon **260** used to promote a particular business:

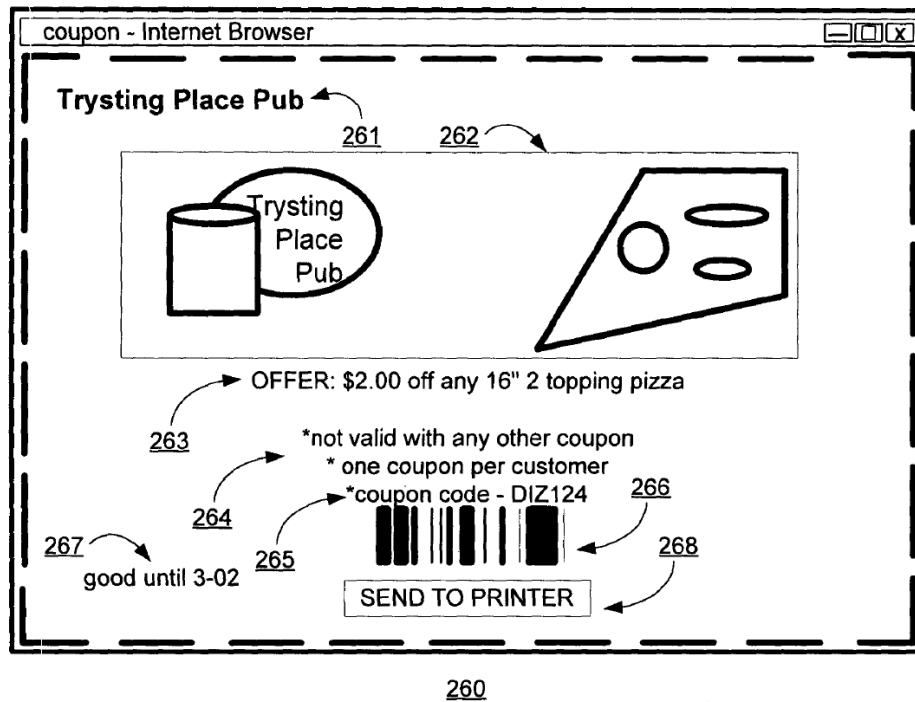


FIG. 13

(Nicholas, Fig. 13.) Nicholas explains that, as shown in Figure 13, a coupon can contain a number of elements including company name **261**, a specific offer from the advertiser **263**, restrictions **264** such as one coupon per customer, coupon code **265** or bar code **266**, a valid or expiration date **267**, a link or print image **268** that allows the coupon to be printed, among other elements. (Nicholas, ¶0067.)

The term “**project type**” does not appear in the ’898 patent outside the claims. Nevertheless, dependent claim 6 below further specifies that the project type can be, for example, “**a business project.**” As applied to Nicholas, it would have been obvious that “**the data**” of claim 1 (*i.e.*, “**the data comprising advertising material to populate on one or more websites**”) would have comprised a project type, such

as a business project in the form of a coupon advertisement for a particular business. (Nicholas, ¶¶0060, 0067.) In Figure 13 above, the coupon reflects a business project in which the advertiser is attempting to promote a particular business by offering financial incentives to website visitors encouraging them to visit the business and spend money there. Coupons contain unique elements that other types of advertisements do not include, such as a specific offer from the advertiser (with an expiration date and possible restrictions), a coupon code or bar code, and link allowing a coupon to be printed, among other elements. (Nicholas, Fig. 13, ¶0067.) It therefore would have been obvious that a coupon in Nicholas would have been used for a particular type of project such as a business project. (EX1002, ¶158.)

Moreover, to the extent the claim were interpreted to require that the project type be received via the same user interface in Nicholas that obtains the “**data**” and “**advertising material**” of 1[a], it would have been obvious to rearrange the user interface options such that the project type is selected via the same webpage (*e.g.*, Figure 6) where other advertising material is provided, for the same reasons explained for 1[c] and 1[d]. (Nicholas, ¶0057 (“The illustrated interfaces [of Figures 6-11] may be omitted, [or] rearranged....”).) Placing multiple options in a single page was a trivial user interface design decision that had known advantages. (EX1002, ¶¶159, 106-107 (*also citing* Baxley, EX1014, 0021-0022).) The benefits would have included, as explained, streamlining the user interface and allowing the

advertiser to view and weigh the various options defining its campaign simultaneously, facilitating easier adjustment of advertiser selections. (EX1002, ¶¶159, 107.)

6. **Claim 6: “The computer-implemented method of claim 5, wherein the project type is selected from the group consisting of: a non-profit project, a business project, a real estate project, and an art project.”**

As explained for claim 5, the project type can be a business project.

7. **Claim 9: “The computer-implemented method of claim 1, wherein the data comprises a predetermined target audience, and wherein the at least one website comprises one or more websites frequented by the pre-determined target audience.”**

Nicholas also discloses that “**the data**” of claim 1 (*i.e.*, “**the data comprising advertising material to populate on one or more websites**”) can comprise a predetermined target audience, such as a particular user demographic. For example, Nicholas explains in connection with Figure 9, discussed in detail for limitations 1[c] and 1[d], that the advertiser may select through ads selection node **140** “may be organized into categories based upon subject matter, user demographic, or some other method of categorization.” (Nicholas, ¶0062.) Nicholas also discloses a web-based interface allowing the advertiser to “defin[e] the end user demographics over which the advertisement may be displayed.” (Nicholas, ¶0065; *see also id.*, Fig. 12.) It therefore would have been obvious that the data in Nicholas could have included at least “**a predetermined target audience**,” such as a predetermined demographic

category such as gender. (EX1002, ¶164.)

It would also have been obvious that “**the at least one website comprises one or more websites frequented by the pre-determined target audience.**” Nicholas provides an example of an advertiser specifying a predetermined target audience of women and the system targeting websites frequented by that target audience:

For example, a political candidate may be more familiar with the demographics of the audience she wishes to reach... For the purpose of this example we will say the message relates to “a woman’s right to choose” and is geared toward a female audience. In this embodiment, the candidate may specify the geographic area of her constituency, and specify that the ad should be targeted towards women. Ad selection node 140 may then specify that this ad should be served on sites such as iParenting.com, as iParenting.com has collected demographic information relating to their audience that suggests that 98% of their audience is female.

(Nicholas, ¶0073.) It would have been obvious that “**the one or more websites**” that an advertiser could have selected, and to which an advertisement could have been provided, would have comprised websites frequented by a desired target audience. This would have beneficially allowed focusing advertising delivery on websites more likely to be relevant to the target audience. (EX1002, ¶165.)

Moreover, as explained for claim 5 above, to the extent the predetermined target audience must be received via the same user interface in Nicholas that obtains the “**data**” and “**advertising material**” of 1[a], it would have been obvious to allow the advertiser to specify the target audience on the same webpage (*e.g.*, Figure 6) as

other advertising information for the same reasons explained for claim 5 and limitations 1[c] and 1[d] above. (Nicholas, ¶0057; EX1002, ¶¶162, 106-107 (*also citing* Baxley, EX1014, 0021-0022).) This would have, as explained, streamlined the user interface and allowed the advertiser to view and weigh the various options defining its campaign simultaneously. (EX1002, ¶¶162, 107.)

8. Claims 10-15, 18

Claims 10-15 and 18 are substantially similar to claims 1-6 and 9, respectively, except that claims 10-15 and 18 recite a **“computer program product”** that comprises **“a computer readable storage medium readable by one or more processors and storing instructions for execution by the processor,”** for performing the steps in method claims 1-6 and 9. (EX1002, ¶¶163-167.) The claimed computer program product corresponds to storage on ad selection node **140** of Nicholas (**“one or more processors”**), as discussed for limitation 1[a]. It would have been obvious that ad selection node **140** would have included at least a computer readable storage medium (such as a hard disk or other storage) for storing the instructions for execution by the processor. (EX1002, ¶¶164-165.) This is further confirmed by one of Nicholas’s incorporated provisional applications (Nicholas, ¶0001), which shows that ad selection node includes among other things, disk drives 74. (EX1012, Fig. 2, 006:5-7, 009:4-9; EX1002, ¶165.)

9. Independent Claim 19

Independent claim 19 is substantially the same as claims 1 and 10, except that claim 19 is written as a system claim. As explained above, it would have been obvious that Nicholas renders obvious a “**system**” that includes a memory, one or more processors, and program instructions, which would have been included as part of ad selection node **140** as discussed. (EX1002, ¶¶168-169, 164-165.)

C. Ground 2: Claims 7-8, 16-17, and 20 Are Obvious Over Ground 1 Prior Art In Further View of Yasnovsky.

1. Claim 7: “The computer-implemented method of claim 1, further comprising: receiving, by the one or more processors, from the given client, in the message, a target fund amount for the content.”

Yasnovsky (EX1006) describes “[a] self-service platform [that] allows advertisers to create and manage their own ad campaigns to be run on a computer network, such as the Internet.” (Yasnovsky, Abstract.) The self-service platform is similar in many respects to Nicholas and Mayadas. In one embodiment, “the advertiser can create and manage ads, create and manage campaigns using those ads, receive and view reports on the campaigns and maintain his account balance for his campaigns.” (Yasnovsky, ¶0044.) When defining an advertising campaign, the advertiser specifies a campaign budget representing “the maximum amount to be spent on this campaign.” (Yasnovsky, ¶0046; *see also id.*, Fig 3A-1 (showing user specifying budget **312** of \$500).) Yasnovsky therefore discloses an advertising

system that receives “**a target fund amount for the content,**” as claimed. (EX1002, ¶170.)

Rationale and Motivation to Combine (Ground 1 Prior Art + Yasnovsky): It would have been obvious to combine the prior art for **Ground 1** with Yasnovsky, predictably resulting in the advertising system of **Ground 1** further adapted such that ad selection **140** (“**the one or more processors**”) would have received from advertiser node **160** (“**the given client**”), a target fund amount specifying the budget for placing advertising content on websites. (EX1002, ¶171.) It would also have been obvious to receive the target fund amount “**in the message,**” as claimed, either in the claimed “message” that comprises the advertising material (1[a]) or the claimed “message” that results in presentation of the advertising buy options (1[c]), discussed in **Ground 1** above. For example, it would have been obvious to include a selection for the target fund amount (for example as shown in Figure 3A-1 of Yasnovsky) on the user interface webpages of Nicholas (*e.g.*, Figure 6 or Figure 7). Yasnovsky is an analogous reference in the same field of Internet-based advertising and would have been reasonably pertinent to problems facing the inventor, including techniques for allowing an advertiser to specify and modify a target budget for an advertising campaign. (EX1002, ¶171.)

An ordinarily skilled artisan would have been motivated to combine to provide the advertiser greater control over how much it spends on its campaign,

which would have provided a number of clear benefits. (EX1002, ¶172.) For example, the ability of the advertiser to specify a budget for its campaign would have provided a safeguard to prevent the advertiser from spending more than its desired budget. (*Id.*) For example, as explained for 1[e] in **Ground 1**, ad selection node **140** under the proposed combination with Mayadas would have received a block of funds from the advertiser based on the estimated cost of the campaign based on the selections made by the advertiser (such as the number of impressions). (EX1002, ¶¶112-113; Mayadas, ¶¶0029, 0041.) Under the further combination with Yasnovsky, ad selection node **140** would have been further enabled to prevent the advertiser from spending more than its budget, for example, if the advertiser's selections resulted in a campaign with costs exceeding the desired budget. (Yasnovsky, ¶0046 (“The campaign budget is the maximum amount to be spent on this campaign.”).) As an additional benefit, allowing ad selection node **140** to receive a target fund amount would have enabled the system to end the campaign when it reached the desired budget, thus preventing ad selection node **140** from continuing to place advertisements that deplete any excess funds prepaid into the escrow account by the advertiser. (Yasnovsky, ¶0044 (“The advertiser prepays a certain amount in his account. As ads run, debits are generated against the prepayment, drawing down the prepayment.”).) A skilled artisan would have also

had a reasonable expectation of success, as the techniques described in Yasnovsky rely on known technologies. (EX1002, ¶¶173, 181.)

2. **Claim 8: “The computer-implemented method of claim 1, further comprising: prior to determining that the number of impressions is equal to the predetermined number of impressions, obtaining, by the one or more processors, via an input in the graphical user interface, a request for increasing the predetermined number of impressions of the advertising material for users visiting the at least one website; and based on the obtaining, automatically increasing the predetermined number of impressions.”**

As explained for 1[f] in **Ground 1**, the system in Nicholas ceases advertisement delivery when it determines that the number of impressions equals the predetermined number of impressions. (Nicholas, ¶0061.) Yasnovsky further discloses the ability to manage an existing advertising campaign by changing its budget. (Yasnovsky, ¶0049 (“The advertiser can also edit any of the following: the campaign budget 414, the run dates 415 of the campaign, and which ads 416 are used in the campaign.”), Fig. 4A.) “[T]he advertiser can make these edits at any time via the self-service platform.” (Yasnovsky, ¶0049.) This feature thus enables an advertiser to increase the budget for an existing campaign. (EX1002, ¶176.)

It would have been obvious to combine the prior art for **Ground 1** with Yasnovsky, predictably resulting in the advertising system of Nicholas further adapted to allow an advertiser to increase the number of predetermined advertising impressions for an existing campaign. (EX1002, ¶177.) This is directly suggested

by Yasnovsky which, as explained, discloses the ability of an advertiser to change the budget for an advertising campaign at any time. (Yasnovsky, ¶0049.)

Although the advertiser in Nicholas specifies a *number* of advertising impressions for an advertisement rather than the *budget* for those impressions, a skilled artisan would have been motivated based on Yasnovsky to adapt Nicholas to allow the advertiser to increase the previously-established number of impressions through the graphical interface. (EX1002, ¶178.) A skilled artisan would have appreciated that, in many implementations, the budget for an advertising campaign is correlated with the number of advertising impressions that can be delivered during that campaign. (*Id.*) Nicholas describes specifying the number of impressions as a “standard method” for defining the quantity or duration of a campaign. (Nicholas, ¶0061.) It therefore would have been obvious to adapt the system of **Ground 1**, based on the teachings of Yasnovsky, to allow the advertiser to increase the number of impressions. (EX1002, ¶178.) The combination with Yasnovsky would have predictably resulted in the receipt of “**a request for increasing the predetermined number of impressions of the advertising material for users visiting the at least one website,**” representing the advertiser’s desire to serve additional impressions beyond the number previously specified as described for 1[d]. (*Id.*)

It would also have been obvious for ad selection node **140** in Nicholas to have received this request “**prior to determining that the number of impressions is**

equal to the predetermined number of impressions,” as claimed, and a skilled artisan would have been motivated to make this adaptation. (EX1002, ¶179.) For example, if the advertiser found that its advertising campaign was successful and produced positive results, it would have sought to continue that campaign by adding additional impressions before the previously-specified number of impressions was exhausted. (*Id.*) This is directly supported by Yasnovsky, which explains that the advertiser can specify that “when the account falls below a threshold level, an alert is generated to remind the advertiser to refill his account.” (Yasnovsky, ¶0040.) As applied to Nicholas, in which the advertiser specifies a number of impressions rather than an advertising budget, it would have been obvious to allow the advertiser to add more impressions to its campaign, beneficially preventing the campaign from being terminated when the predetermined number of impressions is delivered. (EX1002, ¶179.) Under the proposed combination, therefore, it would have been obvious that ad selection node **140** would have received a request for increasing the predetermined number of impressions *before* the number of impressions was equal to the predetermined number of impressions. (*Id.*)

It would also have been obvious, **“based on the obtaining,”** to **“automatically increas[e] the predetermined number of impressions.”** (EX1002, ¶180.) Under the proposed combination, in response to obtaining the request from the advertiser through the graphical user interface, ad selection node

140 in Nicholas under the proposed combination would have automatically increased the predetermined number of impressions beyond the amount initially specified. No further action would have been required by the user. (Yasnovsky, ¶0044 (“If the overall system is real-time or near real-time, as is the case in this example, any changes will take effect immediately or near-immediately.”).)

3. Claims 16, 17 and 20

Claim 16 is substantially the same as claim 7 and claims 17 and 20 are substantially the same as claim 8, except that they depend from different independent claims, and are obvious for the same reasons. (EX1002, ¶¶182-183.)

D. Grounds 3-4: Claims 1-20 Are Obvious Over Ground 1 and Ground 2 Prior Art In Further View of Manowitz.

As explained in **Part VI.A** above, Patent Owner in the pending litigation has suggested that the claimed “**web property content owner**” in the independent claims must be different from the owner or publisher of the website on which the content is populated. Even if this were a requirement of the challenged claims, the claims would nevertheless be obvious over the prior art cited for **Grounds 1-2**, in further view of **Manowitz** (EX1015). For all aspects of the challenged claims, the analysis from **Grounds 1-2** remains applicable here.

Manowitz discloses the ability of a website to publish web content created by someone other than the owner of the website, and the further ability to provide advertising revenue to that content creator. Manowitz discloses “a model for sharing

revenue between a publisher of content and an author who provides the content.” (Manowitz, p.1.) “In one embodiment, the author produces at least a portion of the content and provides it to the publisher. The publisher then publishes the content, for example, on a web site, for access by a consumer. If the consumer accesses the content, the publisher provides at least a portion of the revenue derived from the access to the author.” (Manowitz, pp.1-2; EX1002, ¶185.)

Rationale and Motivation to Combine (Grounds 1-2 Prior Art + Manowitz):

It would have been obvious to combine the prior art described for **Grounds 1-2** with Manowitz, predictably resulting in the “**web property content owner**” would have been a person or entity other than the website owner or publisher. (EX1002, ¶186.) Accordingly, under 1[f], the advertising material would have been populated “**within web property content of the at least one website,**” *i.e.*, under the further combination with Manowitz, within content created by a person or entity who is not the publisher or owner of the website. (*Id.*) Similarly, under 1[k], the system under the proposed combination would have collected “**a share of the advertising revenue to be transmitted to the web property content owner,**” *i.e.*, to the owner of the web content as discussed. (*Id.*) Manowitz is an analogous reference in the field of providing content and advertising over the Internet and would have been pertinent to problems facing the inventor. (EX1002, ¶187; *see also* Manowitz, Abstract, p.5 (author “compensated based on the advertising revenue generated”).)

A skilled artisan would have been motivated to make the combination. The ability of a website to publish content provided by persons or entities other than the website owner was commonplace and had well-known advantages. (EX1002, ¶188.) For example, incorporating web content from third parties would have allowed a website to rapidly expand by freeing the website owner from having to create the content itself, allowing the owner to sell more advertising impressions. (*Id.*) This motivation is further reinforced by Manowitz, which explains that, using his system, an author can publish content “and receive revenue directly or indirectly due to the particular content.” (Manowitz, p.2.) This would have provided a further financial incentive for third party creators to create content for presentation on the website. A skilled artisan would have had a reasonable expectation of success, as Manowitz relies on well-known technologies. (EX1002, ¶189.)

VII. CONCLUSION

Petitioner respectfully requests IPR institution.

Dated: January 17, 2025

Respectfully submitted,

COOLEY LLP
ATTN: Patent Group
1299 Pennsylvania Avenue NW
Suite 700
Washington, DC 20004
Tel: (650) 843-5001
Fax: (650) 849-7400

By: / Heidi L. Keefe /
Heidi L. Keefe
Reg. No. 40,673
Counsel for Petitioner

CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), I certify that this petition complies with the type-volume limits of 37 C.F.R. § 42.24(a)(1)(i) because it contains 13,888 words, according to the word-processing system used to prepare this petition, excluding the parts of this petition that are exempted by 37 C.F.R. § 42.24(a) (including the table of contents, a table of authorities, mandatory notices, a certificate of service or this certificate word count, appendix of exhibits, and claim listings).

DATED: January 17, 2025

COOLEY LLP
ATTN: Patent Docketing
1299 Pennsylvania Avenue NW
Suite 700
Washington, D.C. 20004
Tel: (650) 843-5001
Fax: (650) 849-7400

/ Heidi L. Keefe /
Heidi L. Keefe
Reg. No. 40,673

CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. Sections 42.6 and 42.105, that a complete copy of the attached **PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 11,416,898 B2**, including all exhibits (**Nos. 1001-1019**) and related documents, are being served via Federal Express on the 17th day of January, 2025, the same day as the filing of the above-identified document in the United States Patent and Trademark Office/Patent Trial and Appeal Board, upon Patent Owner by serving the correspondence address of record with the USPTO as follows:

John Eric De Titta
54 West Avenue Unit 7
Fairport, NY 14450

And, via Federal Express upon counsel of record for Patent Owner in the litigation pending before the U.S. District Court for the District of Delaware entitled *BrodTi Inc. v. Google LLC*, Case No. 1:24-cv-00173-JCB (D. Del.) as follows:

Robert P. Greenspoon
Dunlap Bennett & Ludwig, PLLC
333 N. Michigan Avenue, 27th Floor
Chicago, IL 60601
(312) 551-9500
rgreenspoon@dbllawyers.com

DATED: January 17, 2025

/ Heidi L. Keefe /
Heidi L. Keefe
Reg. No. 40,673
COOLEY LLP
1299 Pennsylvania Ave. NW,
Suite 700
Washington, D.C. 20004
Tel: (650) 843-5001