

Declaration of Christopher M. Schmandt in Support of
Petition for *Inter Partes* Review of
U.S. Patent No. 9,830,615 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

ALMONDNET, INC. and INTENT IQ, LLC,
Patent Owner

Case IPR2022-01064
U.S. Patent No. 9,830,615 B2
Issue Date: November 28, 2017

Title: ELECTRONIC AD DIRECTION THROUGH A COMPUTER SYSTEM CONTROLLING
AD SPACE ON MULTIPLE MEDIA PROPERTIES BASED ON A
VISITOR'S PREVIOUS WEBSITE VISIT

DECLARATION OF CHRISTOPHER M. SCHMANDT

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I, Christopher M. Schmandt, declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

A. Qualifications and Experience

1. I have recently retired from my position as a Principal Research Scientist at the Media Laboratory at Massachusetts Institute of Technology (“M.I.T”), after 40 years of employment by M.I.T. In that role, I also served as faculty for the M.I.T. Media Arts and Sciences academic program. I have more than 40 years of experience in the field of Media Technology, and was a founder of the M.I.T. Media Laboratory.

2. I received my Bachelor of Science degree in Electrical Engineering and Computer Science from M.I.T. in 1978, and my Master of Science degree in Visual Studies (Computer Graphics), also from M.I.T. I had been employed at M.I.T. since 1980, initially at the Architecture Machine Group, which was an early computer graphics research lab. In 1985, I helped found the Media Laboratory and continued to work there until my retirement. I ran a research group titled “Living Mobile.” My research spanned distributed communication and collaborative systems, with an emphasis on multi-media and user interfaces; I have more than 70 published conference and journal papers and one book in these fields.

3. In my faculty position, I taught courses and directly supervised student

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research and theses at the Bachelors, Masters, and Ph.D. level. I oversaw the Masters and Ph.D. thesis programs for the entire Media Arts and Sciences academic program. Based on the above experience and qualifications, I have a solid understanding of the knowledge and perspective of a person of ordinary skill in this technical field since at least 1980.

4. During my career at the MIT Media Laboratory I worked extensively with issues in management, delivery, and interaction with multimedia content through user context modeling. This work emphasized asynchronous or synchronous delivery of current news, either as audio, video, or text. In this context I have worked with a wide variety of network technologies and protocols, connecting a broad assortment of devices. Because much of my work also involved client-server computing with segments in home networks or mobile networks, I am well versed in NAT technologies and IP port management.

5. In this context I developed network protocols, servers, client software, and user interfaces and applications for networked real time data. Related to this work, for some years in the 1990s I was a member of an IETF (Internet Engineering Task Force, later IAB, Internet Activities Board) working group exploring network requirements for real time delivery of multimedia content, both point to point as well as multicast.

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6. In the late 1980s I was involved in the installation and management of a broadband IP network using cable television hardware. In addition I have consulted with major cable television suppliers, some of whom were sponsors of work at the Media Laboratory of which I was a part. As such I am familiar with data-over-cable technologies such as Docsis, cable modem protocols, and media gateway protocols on such mixed use video plus IP networks, with delivery media spanning copper, fiber, and hybrid layered network architectures.

7. My Curriculum Vitae is attached as **Exhibit A**.

8. I have been retained by counsel for Petitioner to provide my expert opinion in connection with the above-captioned proceeding as set forth herein.

B. Materials Considered

9. The analysis that I provide in this Declaration is based on my education, research, and experience, as well as the documents I have considered. In forming my opinions, I have read and considered U.S. Patent No. 9,830,615 B2 (“’615 patent”) [Ex. 1001] and its prosecution history. I have cited to the following documents in my analysis below:

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Exhibit No.	Description of Document
1001	U.S. Patent No. 9,830,615 B2 to Roy Shkedi (filed November 23, 2016, issued November 28, 2017) (“’615” or “’615 patent”)
1003	U.S. Patent No. 6,915,271 B1 to Carl Meyer et al. (filed March 5, 1999, issued July 5, 2005) (“Meyer”)
1004	Excerpts from Robbin Zeff & Brad Aronson, <i>Advertising on the Internet</i> (2d ed. 1999) (“Zeff”)
1005	U.S. Patent No. 7,251,628 B1 to Stefan B. Edlund et al. (filed October 13, 1999, issued July 31, 2007) (“Edlund”)
1006	U.S. Patent No. 5,835,896 to Alan S. Fisher et al. (filed March 29, 1996, issued November 10, 1998) (“Fisher”)
1007	Excerpts from Ed Tittel et al., <i>HTML 4 for Dummies</i> (2d ed. 1999) (“Tittel”)
1008	Excerpts from Robbin Zeff & Brad Aronson, <i>Advertising on the Internet</i> (1997) (“Zeff 1997”)
1009	Excerpts from Michael Miller, <i>Building Really Annoying Websites</i> (2001) (“Miller”)
1010	Excerpts from Benay Dara-Abrams et al., <i>Supporting Web Servers</i> (2001) (“Dara-Abrams”)
1011	Excerpts from Peter Fletcher et al., <i>Practical Web Traffic Analysis: Standard, Privacy, Techniques, Results</i> (2002) (“Fletcher”)
1012	Excerpts from <i>Microsoft Computer Dictionary</i> (5th ed 2002)

Exhibit No.	Description of Document
1013	Prosecution history of the '615 patent

II. PERSON OF ORDINARY SKILL IN THE ART

10. I understand that, under the patent laws in effect before the America Invents Act (“AIA”) of 2011, an assessment of claims of a patent filed before the AIA took effect should be undertaken from the perspective of a person of ordinary skill in the art as of the earliest claimed priority date (*i.e.*, the “time the invention was made”). For purposes of the '615 patent, I have assumed that date to be June 16, 2006, the filing date of the earliest patent application to which the '615 patent claims priority (Appl. Ser. No. 60/804,937).

11. I have also been advised that to determine the appropriate level of a person having ordinary skill in the art, the following factors may be considered: (1) the types of problems encountered by those working in the field and prior art solutions thereto; (2) the sophistication of the technology in question, and the rapidity with which innovations occur in the field; (3) the educational level of active workers in the field; and (4) the educational level of the inventor.

12. The '615 patent states that it relates to “profile-based behavioral targeting advertising methods,” and more specifically, “electronic advertisement

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placement based on expected profit from the placement.” (’615, 1:28-32.)

13. In my opinion, a person of ordinary skill in the art as of June 2006 would have possessed a bachelor’s degree in electrical engineering or computer science, and two years of work experience in the field of network-based computer systems, such as systems for sending and receiving information over local networks and wide area networks (such as the Internet or World Wide Web). A person could also have qualified as a person of ordinary skill in the art with some combination of (1) more formal education (such as a master’s of science degree) and less technical experience, or (2) less formal education and more technical or professional experience.

14. My opinions regarding the level of ordinary skill in the art are based on, among other things, my over 40 years of experience in the field of computer science, my understanding of the basic qualifications that would be relevant to an engineer or scientist tasked with investigating methods and systems in the relevant area, and my familiarity with the backgrounds of colleagues, co-workers, and employees, both past and present.

15. Although my qualifications and experience exceed those of the hypothetical person having ordinary skill in the art defined above, my analysis and opinions regarding the ’615 patent have been based on the perspective of a person

of ordinary skill in the art as of June 2006.

III. STATEMENT OF LEGAL PRINCIPLES

A. Claim Construction

16. I understand that a purpose of claim construction is to determine what a person of ordinary skill in the art would have understood the claim terms to mean. Claim terms are generally given their ordinary and customary meaning, which is the meaning that the term would have to a person of ordinary skill in the art in question as of the effective filing date.

17. I understand that the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification. I understand that the patent specification, under the legal principles, has been described as the single best guide to the meaning of a claim term, and is thus highly relevant to the interpretation of claim terms. And I understand for terms that do not have a customary meaning within the art, the specification usually supplies the best context of understanding the meaning of those terms.

18. I further understand that other claims of the patent in question, both asserted and unasserted, can be valuable sources of information as to the meaning of a claim term. Because the claim terms are normally used consistently throughout

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the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims. Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.

19. I understand that the prosecution history can further inform the meaning of the claim language by demonstrating how the inventors understood the invention and whether the inventors limited the invention in the course of prosecution, making the claim scope narrower than it otherwise would be. Extrinsic evidence, such as dictionaries, may also be consulted in construing the claim terms.

20. I understand that, in *Inter Partes* Review (IPR) proceedings, a claim of a patent shall be construed using the same claim construction standard that would be used to construe the claim in a civil action filed in a U.S. district court (which I understand is called the “*Phillips*” claim construction standard), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.

21. I have been instructed by counsel to apply the “*Phillips*” claim construction standard for purposes of interpreting the claims in this proceeding, to the extent they require an explicit construction. The description of the legal principles set forth above thus provides my understanding of the “*Phillips*” standard

as provided to me by counsel.

B. Obviousness

22. I understand that a patent claim is obvious if, as of the effective filing date, it would have been obvious to a person having ordinary skill in the field of the technology (the “art”) to which the claimed subject matter belongs.

23. I understand that the following factors should be considered in analyzing obviousness: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims; and (3) the level of ordinary skill in the pertinent art. I also understand that certain other facts known as “secondary considerations” such as commercial success, unexplained results, long felt but unsolved need, industry acclaim, simultaneous invention, copying by others, skepticism by experts in the field, and failure of others may be utilized as indicia of nonobviousness. I understand, however, that secondary considerations should be connected, or have a “nexus,” with the invention claimed in the patent at issue.

24. I understand that a reference qualifies as prior art for obviousness purposes when it is analogous to the claimed invention. The test for determining what art is analogous is: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the

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particular problem with which the inventor is involved.

25. I understand that a person of ordinary skill in the art is assumed to have knowledge of all prior art. I understand that one skilled in the art can combine various prior art references based on the teachings of those prior art references, the general knowledge present in the art, or common sense. I understand that a motivation to combine references may be implicit in the prior art, and there is no requirement that there be an actual or explicit teaching to combine two references. Thus, one may take into account the inferences and creative steps that a person of ordinary skill in the art would employ to combine the known elements in the prior art in the manner claimed by the patent at issue. I understand that one should avoid “hindsight bias” and ex post reasoning in performing an obviousness analysis. But this does not mean that a person of ordinary skill in the art for purposes of the obviousness inquiry does not have recourse to common sense.

26. I understand that when determining whether a patent claim is obvious in light of the prior art, neither the particular motivation for the patent nor the stated purpose of the patentee is controlling. The primary inquiry has to do with the objective reach of the claims, and that if those claims extend to something that is obvious, then the entire patent claim is invalid.

27. I understand one way that a patent can be found obvious is if there

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existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent's claims. I understand that a motivation to combine various prior art references to solve a particular problem may come from a variety of sources, including market demand or scientific literature. I understand that a need or problem known in the field at the time of the invention can also provide a reason to combine prior art references and render a patent claim invalid for obviousness. I understand that familiar items may have obvious uses beyond their primary purpose, and that a person of ordinary skill in the art will be able to fit the teachings of multiple prior art references together like the pieces of a puzzle. I understand that a person of ordinary skill is also a person of at least ordinary creativity. I understand when there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this finite number of predictable solutions leads to the anticipated success, I understand that the invention is likely the product of ordinary skill and common sense, and not of any sort of innovation. I understand that the fact that a combination was obvious to try might also show that it was obvious, and hence invalid, under the patent laws. I understand that if a patent claims a combination of familiar elements according to known methods, the combination is likely to be

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obvious when it does not more than yield predictable results. Thus, if a person of ordinary skill in the art can implement a predictable variation, an invention is likely obvious. I understand that combining embodiments disclosed near each other in a prior art reference would not ordinarily require a leap of inventiveness.

28. I understand that obviousness may be shown by demonstrating that it would have been obvious to modify what is taught in a single piece of prior art to create the patented invention. Obviousness may also be shown by demonstrating that it would have been obvious to combine the teachings of more than one item of prior art. I understand that a claimed invention may be obvious if some teaching, suggestion, or motivation exists that would have led a person of ordinary skill in the art to combine the invalidating references. I also understand that this suggestion or motivation may come from the knowledge of a person having ordinary skill in the art, or from sources such as explicit statements in the prior art. I understand that when there is a design need or market pressure, and there are a finite number of predictable solutions, a person of ordinary skill may be motivated to apply common sense and his skill to combine the known options in order to solve the problem.

29. I understand the following are examples of approaches and rationales that may be considered in determining whether a piece of prior art could have been combined with other prior art or with other information within the knowledge of a

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person having ordinary skill in the art:

- (1) Some teaching, motivation, or suggestion in the prior art that would have led a person of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention;
- (2) Known work in one field of endeavor may prompt variations of it for use in the same field or a different field based on design incentives or other market forces if the variations would have been predictable to a person of ordinary skill in the art;
- (3) Combining prior art elements according to known methods to yield predictable results;
- (4) Applying a known technique to a known device, method, or product ready for improvement to yield predictable results;
- (5) Applying a technique or approach that would have been “obvious to try” (choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success);
- (6) Simple substitution of one known element for another to obtain predictable results; or
- (7) Use of a known technique to improve similar products, devices, or methods in the same way.

30. I understand that, when determining whether a claimed combination is obvious, the correct analysis is not whether one of ordinary skill in the art, writing on a blank slate, would have chosen the particular combination of elements described in the claim. Instead, I understand the correct analysis considers whether one of ordinary skill, facing the wide range of needs created by developments in the field of endeavor, would have seen a benefit to selecting the combination claimed.

31. I understand that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. The test for obviousness, in other words, is not whether the references could be physically combined but whether the claimed inventions are rendered obvious by the teachings of the prior art as a whole.

IV. THE '615 PATENT

A. Overview of the Specification

32. The '615 patent, entitled "Electronic Ad Direction Through A Computer System Controlling Ad Space On Multiple Media Properties Based On A Viewer's Previous Website Visit," states that it "generally relates to profile-based behavioral targeting advertisement placement methods" and more specifically, "to electronic advertisement placement based on expected profit from the placement." ('615, 1:28-32.)

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33. In the “Background of the Invention” section, the ’615 patent acknowledges the existence of so-called behavioral targeting companies (“BT companies”), which “specialize in targeting ads based on observed behavior of sites’ visitors.” (’615, 2:5-13.) The patent explains that a BT company receives or collects profile information about site visitors, such as behavioral information, demographic information or user-provided information, and “target[s] ads to those visitors wherever found based on the collected profile information.” (’615, 2:36-43.)

34. The patent explains that, in order for those visitors to be “found,” the BT company “tags” the visitor, or arranges for the visitor to be tagged by a third party, such as by the operators of other media properties. (’615, 2:1-5; *see also id.*, 3:31-36 (“A tag generally is a unique identifier used to mark a person electronically visiting a media property such as a web site, TV channel, radio show, or the like, using a computer, a mobile device... or any other device.”).) A “cookie” placed on the visitor’s device is “one example of a possible tag.” (’615, 3:31-32; *see also id.*, 3:24-30.)¹ The ’615 patent acknowledges that the placement of cookies on

¹ The term “cookie” refers to a well-known technology created in the mid-1990s by Netscape that allowed a server for a website to send a small block of information

computers in order to recognize those users when they visit websites was known in the art and practiced by prominent Internet advertising services such as DoubleClick and existing “BT companies.” (’615, 1:36-2:13.)

35. The advertisement placement methods described in the ’615 specification generally involve a BT company arranging with a third party to tag a visitor to a first media property (such as a web site), such as by having the third party place a cookie on the visitor’s computer. (*E.g.*, ’615, 6:26-32, 8:50-54, 8:56-63.) The tag identifies the visitor’s computer as being associated with the BT company and, because the tag is readable by the third party, enables the third party to recognize

to a user’s web browser, where it would be stored. The user’s browser would then send that block of information back to the server when issuing subsequent requests for information from that website. One of the primary purposes of cookies, consistent with the ’615 patent, was to allow a web server to identify the user when the user accessed pages of a website. This functionality was (and remains to this day) widely used for many well-known functions such as maintaining a “shopping cart” for a user and allowing a user to “log-in” to a website and receive information that is tailored or personalized for that user.

the visitor at a later time. (*E.g.*, '615, 6:26-32, 8:50-54, 8:56-63, 9:50-54.) The tag thus enables the third party to identify the tagged visitor at a later time, for example, if it accesses a website whose advertising space is managed by the third party. The third party then arranges for the BT company to serve an ad to the visitor. (*E.g.*, '615, 9:16-22.) The BT company targets an ad to the visitor using profile information collected about the visitor while visiting the first media property, provided that the ad can be delivered for less than a price cap specified by the BT company. (*E.g.*, '615, 8:48-55, 9:47-54, 7:7:49-57.)

36. I discuss additional aspects of the '615 patent as needed in the analysis below.

B. The Challenged Claims

37. This Declaration addresses claims 9-12 of the '615 patent. Independent claim 9 recites:

9. A computer system controlled by a behavioral targeting company (BT company), which computer system (BT computer system) is comprised of one or more computers and is structured and programmed to perform a method of directing electronic advertisements, the method comprising: automatically with the BT computer system:
 - (a) at a first time, arranging for a third party computer system controlling advertising space on a plurality of third party media properties to

electronically tag a first computer of a first visitor visiting a first website, without transferring to the third party computer system any profile information related to the first visitor, which tag is readable by computers operating under a domain of the third party computer system and identifies the visitor computer as associated with the BT company;

- (b) recording, in a profile of the first visitor maintained by the BT computer system, profile information collected during the first computer's visit to the first website;
- (c) electronically transferring to the computer system a price cap that the BT company is willing to pay for allowing delivery of an advertisement within media property advertising space controlled by the third party computer system controlling advertising space on the plurality of third party media properties; and
- (d) at a second time, later than the first time, upon receiving a redirection of the first computer while the first computer is visiting one of the plurality of third party media properties, causing a selected advertisement to be served to the first computer, which advertisement is based on the profile information collected during the first computer's visit to the first website, which profile information is in the profile of the first visitor maintained by the BT computer system, in exchange for a price less than the price cap.

('615, 14:7-40 (Claim 9).) I address the claims further in my detailed analysis in

Part V below.

V. APPLICATION OF THE PRIOR ART TO CHALLENGED CLAIMS

38. I have reviewed and analyzed the prior art references and materials listed in **Part I.B** above. In my opinion the claims of the '615 patent would have been obvious to a person of ordinary skill in the art based on the following combinations of the prior art.

Ground	Claims	Basis for Challenge (Obviousness)
1	9-12	Obvious over Meyer (Ex. 1003) in view of Zeff (Ex. 1004), Edlund (Ex. 1005), and Fisher (Ex. 1006)
2	9-12	Obvious over Ground 1 prior art (Meyer, Zeff, Edlund, Fisher), in further view of Tittel (Ex. 1007)

39. I am informed by counsel that each of the references cited in the grounds above qualifies as prior art to the challenged claims because each reference was filed and/or published before the '615 patent priority date (June 16, 2006). In addition to the references cited above, I have also cited to Miller (Ex. 1009), Dara-Abrams (Ex. 1010), Fletcher (Ex. 1011) and Zeff 1997 (Ex. 1008) in my analysis of **Ground 1** to confirm the existence of an obviousness motivation that would have been known to an ordinarily skilled artisan. Because I am citing these references

solely to provide or confirm a motivation to combine, or a motivation to implement the proposed combination in manner that satisfies the limitations of the challenged claims – and not to supply claim limitations missing from the prior art – I have not listed these references in the grounds above. They nevertheless support my opinions that the challenged claims are obvious based on the grounds listed above, as I will demonstrate below. I am informed that these references also qualify as prior art to because they were published before the '615 patent priority date.

A. Brief Summary and Overview of the Prior Art

40. The challenged claims of the '615 patent attempt to lay claim to techniques that were already well-known by June 2006 and practiced through “advertising networks” (or “ad networks”). “Ad networks” developed during a period of explosive growth of the Internet and Internet advertising. By the early 2000s, there were tens of millions of websites accessible over the Internet, most of them owned and operated by different individuals or entities.

41. Ad networks developed as a response to the increasing number of websites on the Internet – and the desire to provide advertising for these websites – by offering an advertiser a way to easily display its advertisements across many different web sites. Advertisers could arrange to have their advertisements distributed through ad networks, which in turn would cause those ads to be displayed

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across multiple third party websites that participated in the ad networks. Conceptually speaking, therefore, ad networks operated as “middlemen” that brought together advertisers and third-party websites, thereby allowing advertisers to place their advertisements on third party websites without having to interact directly with the owners or operators of those websites. As explained in Zeff, *Advertising On the Internet* (2d ed. 1999) (Ex. 1004):

[A]n ad network brings together a group of sites with advertising inventory to sell in order to offer greater access and ease to publishers and advertisers. For publishers, this means access to more advertisers through the network’s sales force; for the advertisers, this means that they can purchase impressions on a host of sites. As the cliché promises, there is power in numbers, and ad networks bring together the power of a selling block to individual sites.

(Zeff, pp.00133-00134.) One example of a popular early ad network was DoubleClick:

DoubleClick... is an example of an advertising network... A media buyer can make one purchase with DoubleClick and have an ad placed on dozens of sites. For example, an advertiser who purchases impressions in DoubleClick’s Sports/Leisure/Entertainment affinity would be able to run banners on the various sites that DoubleClick represents in this category. Put another way, a network gives an advertiser much greater reach than most individual sites..

(Zeff, p.0065.) As of the 1999 publication date of Zeff, more than six years before the priority date of the challenged claims, there were dozens of ad networks in operation. (Zeff, p.00130, Table 10.2; *see also id.*, pp.00141-00149.) The '615 patent itself acknowledges DoubleClick ad network as prior art, and concedes that certain aspects of the alleged invention are similar to how DoubleClick operated. ('615, 1:36-2:4, 5:21-25).

1. Meyer [Ex. 1003]

42. **Meyer**, U.S. Patent No. 6,915,271 B1, is entitled “Method and System for Delivering Redeeming Dynamically and Adaptively Characterized Promotional Incentives on a Computer Network.” I am informed that Meyer qualifies as prior art because it was filed on March 5, 1999 and issued on July 5, 2005, both dates being before the priority date of the challenged claims.

43. Meyer discloses an advertising system, similar to the conventional ad networks of the late 1990s discussed above, in which an advertiser can, through an intermediary third party computer system, cause advertisements to be placed across multiple third party websites. Meyer refers to these advertisements as “incentives.” (Meyer, 7:19-20, 6:34-43.) “Examples of incentives include, without limitation, discount coupons, sweepstakes, frequent flyer program mileage, promotional points, premiums, free samples, and product tie-ins.” (Meyer, 7:20-23.) These incentives

may be published “at one or more locations of the network,” such as “Web-pages or e-mail messages.” (Meyer, 7:39-43.)

44. In one embodiment, as explained in more detail below, a third party website may display an “incentive existence message” (such as an icon with associated text) that, when activated, displays information about the incentive. (Meyer, 7:27-30, 8:6-11, 8:38-46, 29:36-39 (“Once the consumer views an incentive icon, the consumer may click on an incentive icon to pop up a description of the promotion, which may be an incentive to purchase a particular product, a sweepstakes entry, etc.”), 10:54-56 & 11:7-13 (icon activation may occur automatically).) The incentive existence message or icon can appear on third party websites including “manufacturer Web sites where products are described; retailer Web sites where products are sold; affinity Web sites for special interests such as entertainment, sports or travel,” among other places. (Meyer, 27:66-28:4.) Figure 21 shows an exemplary pop-up window describing an incentive for a \$100 discount on a Sony Camcorder product:

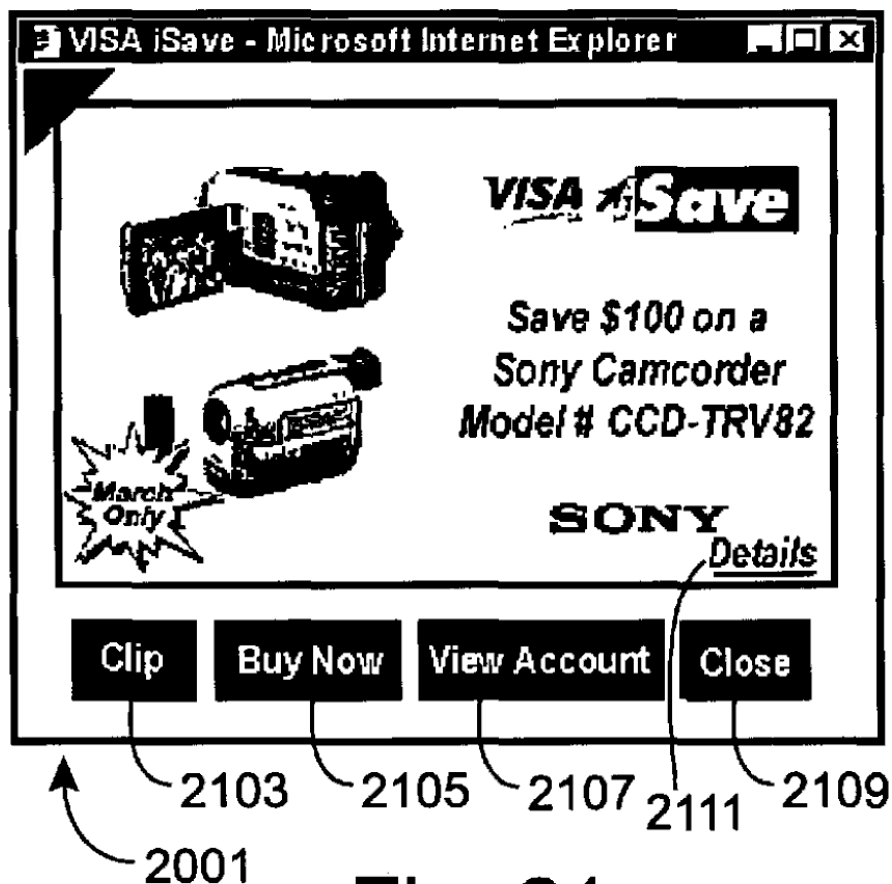


Fig. 21

(Meyer, Fig. 21, 35:22-23 (“An example of an incentive display **2101** for a discount incentive is shown in FIG. 21.”).) I will provide more detail about the incentives in a further discussion below regarding Ground 1.

45. Figure 1 of Meyer shows the key components of the disclosed incentive system, including the two critical computer systems that I rely upon:

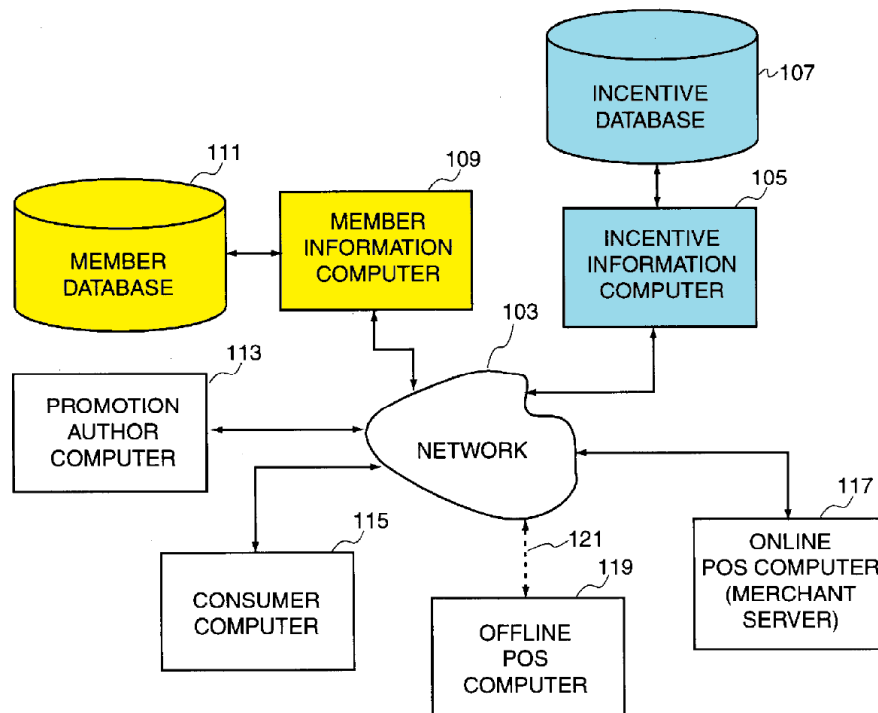


Fig. 1

(Meyer, Fig. 1 (highlighting added).) For purposes of my Declaration, the two critical computers in Meyer shown in Figure 1 are the member information computer **109** shown in yellow (with associated member database **111**), and incentive information computer **105** shown in blue (with associated incentive database **107**). As demonstrated in my discussion of **Ground 1** below, member information computer **109** discloses and renders obvious the claimed “**BT computer system**,” and incentive information computer **105** discloses and renders obvious the claimed “**third party computer system**.”

46. With respect to member computer **109** (the claimed “**computer system**

(BT computer system)”), Meyer explains that “[t]he member information computer 109 is a computer which holds consumer information, the consumer information in the form of one or more databases (the member database 111).” (Meyer, 18:35-38.) Meyer further explains that “the member information computer is typically run by the account provider.” (Meyer, 18:35-39.) “An account provider is an entity that manages data about members, including maintaining all the necessary database of information about the members.” (Meyer, 16:39-41.) In terms of its software processes, Meyer discloses an “account provider process (ACCTPRVD) 331,” shown in Figure 3, which is “a set of computer programs operating on the member information computer 109.” (Meyer, 20:14-16.)

47. For ease of reference and consistency throughout my Declaration, as shown below, I may also refer to the member information computer 109 and database 111 shown in Figure 1 as the “*account provider computer*” consistent with its description in other places in Meyer. (Meyer, *e.g.*, *e.g.*, 31:24-25 (“... the account provider computer (also called the member information computer) 109.”).) Meyer explains that the account provider, who runs the account provider computer, can be a credit card issuer that maintains accounts for its members. (Meyer, 26:19-22 (“For example, if the account provider is a credit card issuer...”), Fig. 22 & 33:10-14, 33:35-39 & Fig. 27 (“Your VISA iSave account has been created.”).) In one

embodiment, a credit card issuer account provider can sponsor its own incentives. (Meyer, 26:19-22; *see also id.*, Fig. 22 & 33:10-14 (“The particular example of FIG. 22 is for incentives sponsored by a credit card external membership organization...”), 30:23-32 (“In some situations, an external membership organization, for example... a particular credit card organization (members are defined as holders of the particular credit card), sponsors incentives....”).)

48. The account provider computer works with the other key computer in Figure 1 to deliver incentives – the incentive information computer 105 (which discloses the claimed “**third party computer system**”). “The incentive information computer 105 is a computer which holds incentive information, the incentive information in the form of a database (incentive database 107).” (Meyer, 18:18-20.) Incentive information computer 105 is “typically run by the service provider.” (Meyer, 18:20-22; *see also id.*, 16:36-37 (“A service provider is the entity (typically a company) that runs the incentive system described herein.”).) For purposes of my analysis, therefore, I will refer to the incentive information computer 105 as the “*service provider computer*” consistent with its description throughout in Meyer. (Meyer, *e.g.*, 31:22-23 (“... the service provider computer (also called the incentive information computer) 105.”).) As I will explain below in my discussion of claim 9(d) for **Ground 1**, the service provider computer is responsible for the direct

interactions between the third party website and the user computer, including placing URLs on third party websites that cause the incentive existence messages (icons) and incentives to appear.

49. Meyer makes clear that incentive information computer **105** (service provider computer) and member information computer **109** (account provider computer) can be a single computer or can be separate computers. (Meyer, 19:6-10.) The service provider and account provider can also be the same or different entities. (Meyer, 16:36-38 (“A service provider is the entity (typically a company) that runs the incentive system defined herein.”), 16:39-41 (“An account provider is an entity that manages data about members, including maintaining all the necessary databases of information about the members.”), 18:42-45 (noting that account provider and service provider could be “the same entity” or account provider could “retain[] the service provider”).) But as I will explain below, I am relying on embodiments in which the account provider and service provider are not the same entities, such that the account provider computer and service provider computer are separate computers. (Meyer, 19:8-10 (“[I]n other embodiments, the member information computer **109** may be separate from the incentive information computer **105**.”).) In this embodiment, as explained below, the service provider computer qualifies as a “**third party**” computer system because it would have been owned and

operated by an entity different from the “**BT company**” that operates the “**BT computer system.**” I will provide more details about Meyer in my discussion of **Ground 1** below.

2. Zeff [Ex. 1004]

50. I introduced Zeff earlier in this section (**Part V.A**). Zeff, entitled *Advertising on the Internet* (2d ed.), is a 1999 book describing (as its name suggests) various topics relating advertising on the Internet and the Web. I am informed that Zeff qualifies as prior art because it was published before the priority date applicable to the challenged claims.

51. My Declaration cites Zeff for two primary purposes. First, as mentioned previously, Zeff provides an overview of advertising (ad) networks, and how these ad networks provide a service to advertisers of placing their advertisements across multiple third party websites. I cite Zeff in combination with Meyer to provide a further rationale to implement the system of Meyer such that the account provider computer (“**BT computer system**”) and the service provider computer (“**third party computer system**”) would have been separate computers owned and operated by separate companies. As I will explain in my analysis of claim 9(a) below, the service provider computer in Meyer provides functions analogous to an ad network computer that places advertisements across multiple

websites, and the account provider in Meyer is analogous to an advertiser who seeks to use the services of an ad network to place its advertisements. Zeff confirms that an ordinarily skilled artisan would have had several compelling motivations to implement the disclosed incentive system in Meyer such that the account provider and service provider computers are owned and operated by different companies, as I will explain in the analysis accompanying claim 9(a) in **Ground 1** below.

52. Second, claim 9(c) and 9(d) recite limitations relating to transferring a “price cap” that represents an amount **“the BT company is willing to pay for allowing delivery of an advertisement within media property advertising space controlled by the third party computer system.”** Meyer does not disclose details regarding how or whether compensation is provided for the display of incentives, but Zeff discloses known techniques of selling advertising through Internet auctions that had become popular by the late 1990s. As Zeff explains:

Auctions are big on the Internet and are a good place to buy and sell excess ad inventory. Because the auctions are selling excess inventory, advertisers can usually get pretty good prices on well-recognized sites. For publishers it’s a way to generate revenue on inventory that would otherwise go unsold.

(Zeff, p.0081.) Well-known sites such as Yahoo!, E! Online, Netscape, among others, were using auctions to sell advertising inventory. (Zeff, p.0082.)

53. Anyone who had used an online auction and bidding site such as eBay would have been readily familiar with the operation of the advertising auction sites described in Zeff. Zeff describes one company known as Adauction.com that provided an auction service enabling websites “to sell excess inventory; they sell ad campaigns that begin the month after the auction (if the auction is in January, the flight is in February).” (Zeff, p.0082; *see also id.*, p.00152 (“**Flight**. An advertising campaign on a specific Web site for a specific time period....”).) Figure 7.12 shows an Adauction “bidding floor” window showing an active auction for advertising space on the “Internet Travel Network” site:

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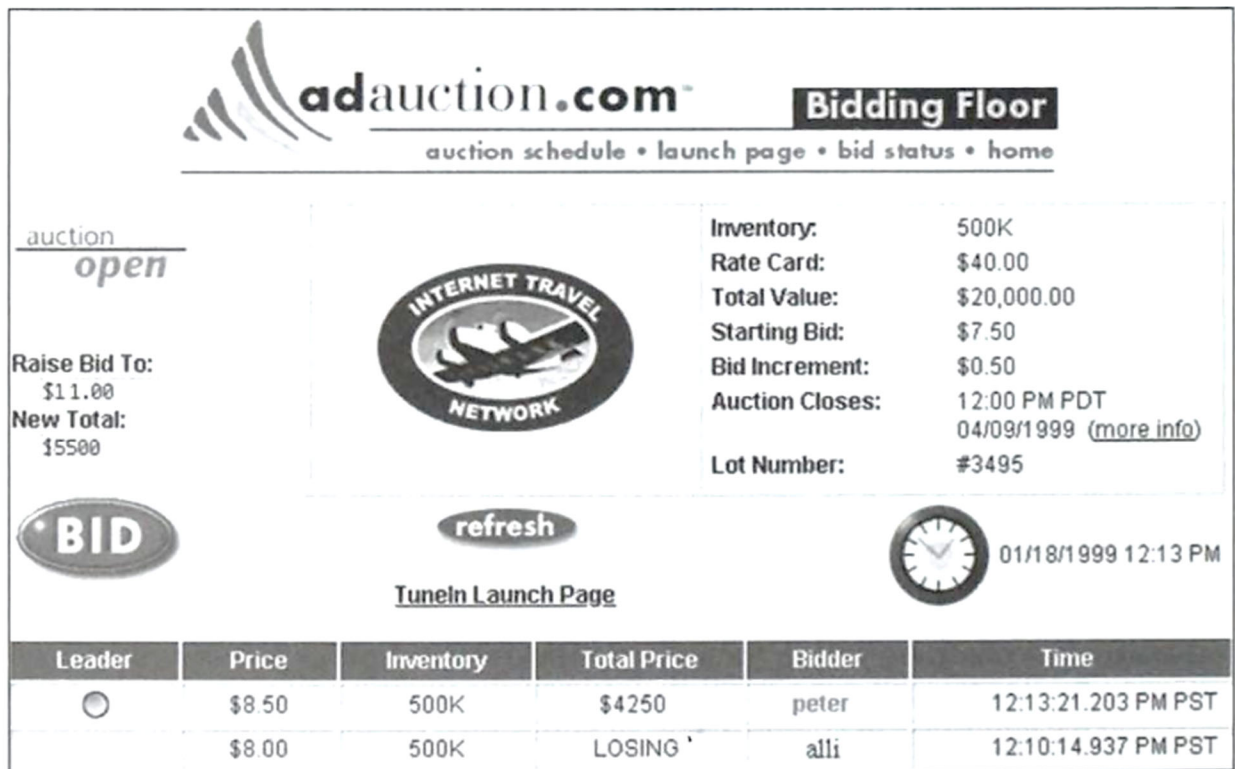


Figure 7.12 The Adauction.com bidding floor.

(Zeff, p.0083, Fig. 7.12.) The exemplary Adauction.com screen above shows an auction for an inventory of 500,000 (“500K”) advertising impressions or displays, with a currently winning bid from “peter” of \$8.50. (*Id.*) Figure 7.12 also includes a “**Bid**” button (on the left) to enable the user to submit a higher bid. (*Id.*)

54. The bid prices in Figure 7.12 are based on “CPM,” a well-known pricing model that specifies the cost to display an advertisement 1,000 times. (Zeff, p.00102 (“CPM, or cost per thousand. Means that the advertiser will pay a set fee for every thousand times an ad banner is delivered.”).) Advertiser “peter” is thus

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willing to pay \$8.50 to have its advertisements delivered 1,000 times. The total price for his winning bid is thus shown as “\$4250” based on multiplying the \$8.50 CPM by 500 (for the 500,000 impressions in the auctioned inventory). CPM is a well-known pricing model and specifically referenced in the ’615 patent as an example of representing how much an advertiser would be willing to pay for display of its advertisements. (’615, *e.g.*, 6:1-6 (“... the advertiser is willing to pay \$25 for every thousand ads (CPM) presented to people who visited that mutual fund section.”).)

55. Zeff also discusses Flycast, another company that commercialized an on-line advertising auction. Similar to Adauction.com, advertisers can “buy inventory in Flycast’s real-time bidding for space. In the real time bidding, the site sets the minimum bid on the inventory, and the price increases if an advertiser needs to bid higher than someone else to secure the space.” (Zeff, p.0084.) Zeff further explains that auctions were not only run for advertising on individual websites – ad networks can also auction website advertising space in real time. (Zeff, p.0033.) I will provide more detail about Zeff in the analysis of **Ground 1** below.

3. Edlund [Ex. 1005]

56. **Edlund**, U.S. Patent No. 7,251,628 B1, is entitled “Automated Purchasing Agent System and Method.” I am informed that Edlund qualifies as prior art because it was filed on October 13, 1999, before the ’615 patent priority date.

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57. As explained in the previous section, my Declaration cites Zeff for its disclosure of Internet auctions for placing advertisements to disclose aspects of the “**price cap**” limitations of the challenged claims. I note that claim 9 begins (immediately after the preamble) with language specifying that the recited steps occur “**automatically with the BT computer system.**” Zeff does not appear to disclose that advertisers submit bids “**automatically**” to the auction system, but this feature would have been obvious based on Edlund.

58. Edlund discloses techniques for automating and managing bids within the context of an Internet auction. (Edlund, Abstract.) Edlund explains that “the popularity of web-based auction sites is growing rapidly,” such that “more and more purchasers are becoming involved and taking advantage of this auction based buying on the World Wide Web (WWW).” (Edlund, 1:35-38.) But Edlund laments that “[p]urchasers have to do the entire bidding process manually,” which requires that they “carefully monitor their active auctions and must quickly react when other persons place higher bids on a desired item.” (Edlund, 2:27-30.)

59. Edlund purports to address these problems “by allowing purchasers to manage their auction sites automatically.” (Edlund, 2:35-37.) In one embodiment, purchasers manage several different Internet auction sites and specify a configuration profile for each site specifying, among other things, how to access the

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auction site, how to retrieve auctions, and how to place or cancel bids. (Edlund, 2:37-53.) The purchaser can also specify desired items and a price range it is willing to pay for those items. (Edlund, 2:54-61.) “The present invention will then automatically contact the desired auctions sites and perform a query (poll) in specific time intervals to determine whether the selected item is currently available for purchase. With this information one preferred embodiment will then automatically select the auction with the lowest current bid and place a bid there.” (Edlund, 2:61-67.) Edlund explains, in one exemplary example of purchasing a “greatest hits” compact disc (CD) from an auction site:

Then the purchaser will enter his/her purchasing request along with the maximum amount of money he/she is willing to pay for the requested item. In this example, the greatest hits CD would constitute the purchasing request. The present invention now queries the auction site to determine if the desired CD is currently available for bidding. In case that the CD is available and the current bidding price is below the defined maximum, it will automatically place a bid. Then it will monitor the bid and place additional bids if necessary. For instance it could happen that someone placed a higher bid, and the auction terminated. The present invention then searches for another ongoing auction that would be appropriate to meet the user purchase requirements. Additionally, it could place more bids on different auctions if it seems to be necessary to enhance the probability of buying

the desired item.

(Edlund, 4:58-5:6; *see also id.*, 8:62-9:18.) Edlund also makes clear that despite the above example involving purchasing merchandise (such as a CD), its automatic bidding techniques are broadly applicable to any commercial context involving bidding. Edlund explains that “the entire broad context of sales and purchase order bidding within normal commerce is within the anticipated scope of the present invention” (Edlund, 4:7-9), and that the invention can also be applied to “automated purchases of stock over the Internet,” among others. (Edlund, 10:41-51.)

60. As I will explain below, it would have been obvious based on Meyer and Zeff, to adapt the system to provide the claimed “**price cap**” (bid) automatically as described in Edlund. I will provide more details about Edlund in my analysis of claim 9(c) for **Ground 1** below.

4. Fisher [Ex. 1006]

61. **Fisher**, U.S. Patent No. 5,835,896, is entitled “Method and System for Processing and Transmitting Electronic Auction Information.” I am informed that Fisher qualifies as prior art because it was filed on March 29, 1996 and issued on November 10, 1998, both dates before the ’615 patent priority date.

62. Fisher, like Edlund, relates to electronic Internet-based auctions. I cite Fisher for the last limitation of claim 9(d), which requires causing a selected

advertisement to be served to the first computer “**in exchange for a price less than the price cap.**” As noted, it would have been obvious based on Zeff to adapt the incentive system of Meyer to display advertisements “**in exchange for**” a “**price cap,**” *i.e.*, a bid that the account provider is willing to pay for display of its advertisements determined using an auction system. But Zeff does not appear to expressly disclose delivery of advertising in exchange for a price “**less than the price cap,**” because it does not disclose a scenario in which a winning advertising bidder would have been charged less than the bid it provided to the auction.

63. But the ability to implement an auction in which the winning purchaser pays less than its bid amount would have been obvious in further view of **Fisher**, which discloses known auction techniques that can be used to enhance electronic auctions. Fisher discloses at least two known scenarios in which a winning bidder might pay “less than” the amount it provided through its bid.

64. First, Fisher discloses a technique known as “proxy bidding,” which would have been familiar to anyone who had used the popular “eBay” Internet auction service. In a “proxy bidding” system, a potential purchaser submits a bid that represents the maximum price the purchaser is willing to pay for the item. The proxy bidding system does not immediately bid that amount – it instead bids an amount slightly above the currently winning bid. For example, suppose a potential

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purchaser submits a \$100 maximum bid to purchase a pair of sneakers, and the current winning bid for that auction is \$25. A proxy bidding system automatically places a bid for an amount incrementally above the current winning bid (such as \$30). If the purchaser is subsequently outbid (for example someone else bids \$35), the proxy bidding system can automatically submit another bid on behalf of the purchaser (such as \$40), and so forth, and the bidding system can continue this process until the \$100 maximum bid amount is reached. This allows the purchaser to potentially win the auction and pay an amount “**less than**” its \$100 maximum bid.

As Fisher explains:

The electronic auction system of the present invention preferably includes a “Proxy Bidding” feature that may be applied to any of the auction formats described above... When Proxy Bidding is employed, a bidder places a bid for the maximum amount they are willing to pay. The electronic auction system, however, only displays the amount necessary to win the item up to the amount of the currently high proxy bids of other bidders. Typically, the currently high bids display an amount that is one bidding increment above the second highest bid or bids, although a percentage above the second highest bids may be used as well. When a new bidder places a bid that is above a currently displayed high bid, the proxy feature will, in general, cause the currently high bid to move up to an amount higher than the new bid, up to the maximum amount of the currently high bidder’s proxy bid. Once

a new bidder places a bid in excess of the currently high bidder's proxy bid, the new bid becomes the current high bid and the previous high bid becomes the second highest bid. This feature allows bidders to participate in the electronic auction without revealing to the other bidders the extent to which they are willing to increase their bids, while maintaining control of their maximum bid without closely monitoring the bidding. Participation is engaged in automatically on the bidder's behalf by the inventive system. The feature guarantees proxy bidders the lowest possible price up to a specified maximum without requiring frequent inquiries as to the state of the bidding.

(Fisher, 12:63-13:24.) I note that a "proxy bidding" system does not always guarantee that a purchaser who wins the auction pays less than its maximum price; of course, it is possible that bidding activity could drive the final price to exactly match the maximum bid price. But in most cases, when a purchaser wins the auction, the amount it will pay will be "**less than**" its maximum amount.

65. Fisher discloses a second way in which an auction could result in the winning bidder paying "**less than**" its bid amount. Fisher discloses what is commonly known as a "Dutch auction," which refers to an auction commonly used when a number of identical items are being auctioned to a large number of potential purchasers. As Fisher explains:

The electronic auction system of the present invention also provides a

“Dutch Auction” format, wherein the electronic auction system awards the merchandise to all of the top bidders for whom there is available inventory at the price bid by the lowest successful bidder. This format may be preferred by customers for being the most fair when a plurality of a specific item is being auctioned. As with all bidding, there will be a range of bids submitted. In the Dutch Auction format, the highest bidders are awarded the merchandise but at the same price for all successful bidders, the price bid by the lowest successful bidder.

(Fisher, 10:29-39.) For example, suppose a seller wishes to auction 100 identical pairs of sneakers, and 1,000 bidders place bids for the item. The top 100 bidders will win the auction, but will each pay the lowest bid price offered among those 100 bidders. As a result, anyone who submitted a bid above the lowest bid among the 100 bidders will pay an amount that is “**less than**” its bid. A key benefit of a Dutch auction, as Fisher indicates above, is its pricing fairness in treatment of winning bidders, as they all pay the same amount for the auctioned item.

66. As I will explain below, it would have been obvious under the further combination with Fisher, to deliver an advertisement “**in exchange for a price less than the price cap,**” because with either a proxy auction, Dutch auction, or a system that implemented both, the account provider in the proposed combination who wins an action could have paid less than its bid amount. I will provide more details about

Fisher in my analysis of claim 9(d) below.

5. Tittel [Ex. 1007]

67. **Tittel**, entitled *HTML 4 for Dummies* (2d ed. 1999) is a book describing various aspects of website design using HTML. (Tittel, pp.0024-0025.) I am informed that Tittel qualifies as prior art because it was published before the priority date applicable to the challenged claims.

68. My Declaration relies on Tittel solely for **Ground 2**, which provides an alternative basis for finding obviousness with respect to the claimed step of “**upon receiving a redirection of the first computer while the first computer is visiting one of the plurality of third party media properties, causing a selected advertisement to be served to the first computer,**” as recited in claim 9(d).

69. Tittel discloses a well-known HTML “**redirection**” technique involving images placed on webpages. As was well-known to ordinarily skilled artisans, an image is typically included in a web page by including a URL in the HTML for the web page, which points the browser to a location on a server where the browser can retrieve the image for display. (Tittel, p.0047.) Tittel provides an example using the standard HTML image tag (“IMG SRC”) which specifies a URL identifying an image (called “dotred.gif”), located on the same server that provided the underlying webpage:

Hitting the (red) spot with an tag

Let's pick on that harmless-looking bullet point and turn it red. Adding an image to your HTML document is as simple as inserting a line using the tag:

```
<IMG SRC="graphics/dotred.gif">
```

This line contains a *reference* (URL) for a .GIF file named `dotred.gif`. In this case, it's a relative reference that points to a file that the Web server expects to find in a subdirectory named `graphics` — skulking directly beneath the directory where the current page (the page from which the link is called) resides.

(Tittel, p.0047.) The example above, as noted, will retrieve the image (“dotred.gif”) from the subdirectory “graphics” on the same web server that served the current page. (*Id.*) But Tittel confirms that there is no requirement in HTML that a URL refer to the same server that is providing the current web page – the URL can point to any accessible web server, anywhere, that can be expressed as a URL:

Snagging an image from far away

If you wanted to link to an image file of a red dot (`dotred.gif`) located on another Web site, you'd have to use an absolute URL (sometimes called a *full URL*) in the `<img>` tag, like this:

```

```

If you use a full URL to a faraway site in a link on your page, then every time a user loads the image, the browser that hosts the Web page actually links to the other remote Web server to retrieve the graphic. This increases the time needed for the browser to load the file (not a kindly gesture). If the remote location is not online, the browser can't load the image at all (an even unkindlier gesture). Therefore, it usually works better if you keep your graphics in the same place on your own server and thus avoid getting the unkindest gesture of all — mass exodus of your visitors.

(Tittel, p.0047.)

70. The technique described above is an example of “**redirection**” because the URL causes the web browser to “actually link[] to the other remote Web server to retrieve the graphic” (*id.*), in this example, to the server at “someothersite.net.” (*Id.*; see also *Microsoft Computer Dictionary* (5th ed. 2002) [Ex. 1012], p.005 (“**redirection** *n.* The process of writing to or reading from a file or device different from the one that would normally be the target or the source.”).)² And although

² The term “**redirection**” was commonly also used to describe a situation in which the web browser is instructed to navigate *away* from the current page and to an

Tittel states that this redirection technique may have drawbacks because it relies on

entirely different web page. For example, using many standard HTML “redirection” techniques, a web browser could be instructed to navigate to a different web page at a second URL, to which the web browser would respond by replacing the currently-displayed web page with the new page at the at the second URL. The ’615 patent uses the term “redirection” similarly, but more broadly encompasses the technique in Tittel in which the browser does not navigate *entirely* away from a current page. Rather, under this form of redirection mentioned in the ’615 patent, the web browser is directed to obtain some of the content of the current page (such as an ad) from another site. (’615, 1:61-64 (“For a site to have its ad served by an ASP-hosted ad server, such as the one operated by DoubleClick, the site needs to redirect visitors from the site to the DoubleClick ad server, to fetch the ad from the server.”), 4:9-13 (“Once the site redirects the ad space on the page to the ad network (so the ad network could fill the ad space with an ad sold by the ad network), the ad network controls the ad space and has access to the visitor viewing the ad space that was redirected to the ad network by the site...”), 5:37-55 (describing an example in which the “weather.com” site can redirect to a BT company server to serve ad).)

a remote server that may be offline (Tittel, p.0047), those considerations would have been irrelevant to the proposed combination with Meyer as explained in **Ground 2** below. Tittel explains that this redirection technique also offers benefits in certain situations, such as “[i]f your site can benefit from links to remote images that change over time (such as weather map, clock, of Webcam picture),” among others. (Tittel, p.0048.) I will provide more detail about Tittel in my discussion of **Ground 2**.

B. Ground 1: Claims 9-12 Are Obvious Over Meyer in view of Zeff, Edlund, and Fisher

1. Claim 9

71. For reference, claim 9 recites:

9. A computer system controlled by a behavioral targeting company (BT company), which computer system (BT computer system) is comprised of one or more computers and is structured and programmed to perform a method of directing electronic advertisements, the method comprising: automatically with the BT computer system:
 - (a) at a first time, arranging for a third party computer system controlling advertising space on a plurality of third party media properties to electronically tag a first computer of a first visitor visiting a first website, without transferring to the third party computer system any profile information related to the first visitor, which tag is readable by computers operating under a domain of the third party computer system and identifies the visitor computer as associated with the BT company;

- (b) recording, in a profile of the first visitor maintained by the BT computer system, profile information collected during the first computer's visit to the first website;
- (c) electronically transferring to the computer system a price cap that the BT company is willing to pay for allowing delivery of an advertisement within media property advertising space controlled by the third party computer system controlling advertising space on the plurality of third party media properties; and
- (d) at a second time, later than the first time, upon receiving a redirection of the first computer while the first computer is visiting one of the plurality of third party media properties, causing a selected advertisement to be served to the first computer, which advertisement is based on the profile information collected during the first computer's visit to the first website, which profile information is in the profile of the first visitor maintained by the BT computer system, in exchange for a price less than the price cap.

('615, 14:7-40 (Claim 9).)

72. The preamble of claim 9 recites “[a] **computer system controlled by a behavioral targeting company (BT company), which computer system (BT computer system) is comprised of one or more computers and is structured and programmed to perform a method of directing electronic advertisements, the**

method comprising....” I also note that, immediately after the preamble but before claim 9(a), the claim recites “**automatically with the BT computer system.**” As I will explain in the discussion of claims 9(a)-9(d) below, the proposed combination renders obvious the performance of each of the actions recited in claims 9(a)-9(d) “**automatically with the BT computer system.**” With respect to the preamble of claim 9, assuming it imposes a limitation, it is disclosed by and rendered obvious over the prior art.

73. As noted in **Part V.A.1**, Meyer discloses a system and method for “**directing electronic advertisements,**” which Meyer refers to as “incentives.” (Meyer, 7:19-20, 6:34-43; *see also id.*, 29:54-30:15 (describing the display of an incentive as “provid[ing] an item of advertising”).) “Examples of incentives include, without limitation, discount coupons, sweepstakes, frequent flyer program mileage, promotional points, premiums, free samples, and product tie-ins.” (Meyer, 7:20-23.) These incentives may be published “at one or more locations of the network,” such as “Web-pages or e-mail messages.” (Meyer, 7:39-43.)

74. In one embodiment, as explained in more detail below, a web page may display an “incentive existence message” (such as an icon with associated text) that, when activated, displays information about the incentive. (Meyer, 7:27-30, 8:6-11, 8:38-46, 29:36-39 (“Once the consumer views an incentive icon, the consumer may

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click on an incentive icon to pop up a description of the promotion, which may be an incentive to purchase a particular product, a sweepstakes entry, etc.”), 10:54-56 & 11:7-13 (icon activation may occur automatically).) The incentive existence message or icon can appear on a number of different types of third party websites including “manufacturer Web sites where products are described: retailer Web sites where products are sold; affinity Web sites for special interests such as entertainment, sports or travel,” among other places. (Meyer, 27:66-28:4.) Figure 21 shows an exemplary pop-up window describing an incentive for a \$100 discount on a Sony Camcorder product:

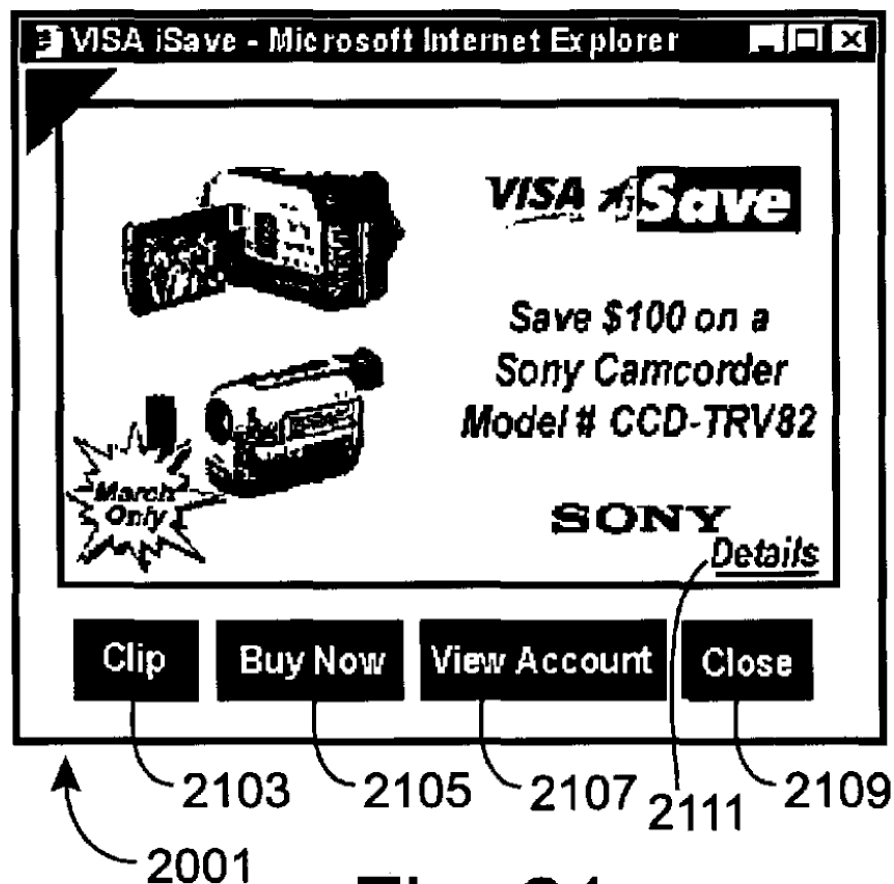


Fig. 21

(Meyer, Fig. 21, 35:22-23 (“An example of an incentive display **2101** for a discount incentive is shown in FIG. 21.”).) I will provide more detail about the incentives in a further discussion below regarding the limitations of claim 9. But for purposes of the preamble, Meyer discloses a method of “**directing electronic advertisements.**”

75. The preamble further states that the recited method is performed by “[a] computer system controlled by a behavioral targeting company (BT company), which computer system (BT computer system) is comprised of one or more

computers.” For purposes of the prior art, the “computer system (BT computer system)” in Meyer is shown in Figure 1:

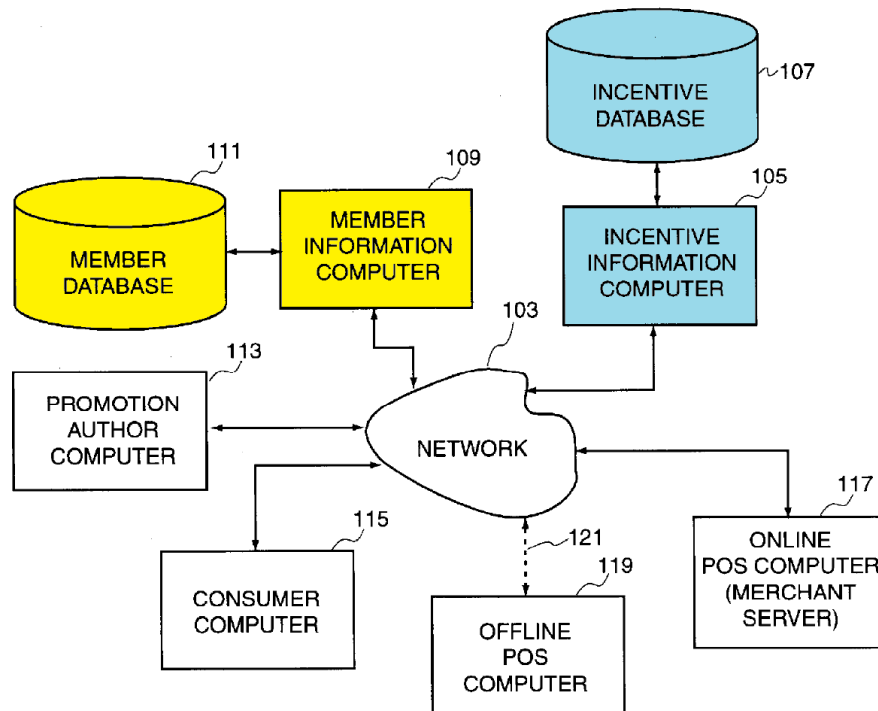


Fig. 1

(Meyer, Fig. 1 (highlighting added).) For purposes of claim 9, the two critical computers in Meyer shown in Figure 1 are the member information computer **109** shown in yellow (with associated member database **111**), and incentive information computer **105** shown in blue (with associated incentive database **107**). As I will demonstrate below, the member information computer **109** discloses and renders obvious the claimed “**BT computer system**,” and the incentive information computer **105** discloses and renders obvious the claimed “**third party computer**”

system” recited later in claim 9.

76. With respect to member computer **109** (the “**computer system (BT computer system)**”), Meyer explains that “[t]he member information computer **109** is a computer which holds consumer information, the consumer information in the form of one or more databases (the member database **111**).” (Meyer, 18:35-38.) Meyer further explains that “the member information computer is typically run by the account provider.” (Meyer, 18:35-39.) “An account provider is an entity that manages data about members, including maintaining all the necessary database of information about the members.” (Meyer, 16:39-41.) In terms of software processes, Meyer discloses an “account provider process (ACCTPRVD) **331**,” shown in Figure 3, which is “a set of computer programs operating on the member information computer **109**.” (Meyer, 20:14-16.)

77. For ease of reference and consistency throughout my Declaration, I may also refer to the member information computer **109** and database **111** shown in Figure 1, which disclose and render obvious the recited “**computer system (BT computer system)**,” as the “*account provider computer*” consistent with its description in other places in Meyer. (Meyer, *e.g.*, *e.g.*, 31:24-25 (“... the account provider computer (also called the member information computer) **109**.”).)

78. Meyer explains that the account provider, who runs the account

provider computer can be a credit card issuer that maintains accounts for its members. (Meyer, 26:19-22 (“For example, if the account provider is a credit card issuer...”), 33:35-39 & Fig. 27 (“Your VISA iSave account has been created.”).) The account provider, such as a credit card company, can also sponsor its own incentives. (Meyer, Fig. 22 & 33:10-14 (“The particular example of FIG. 22 is for incentives sponsored by a credit card external membership organization....”), 30:23-32 (“In some situations, an external membership organization, for example... a particular credit card organization (members are defined as holders of the particular credit card), sponsors incentives....”).)

79. As noted, the preamble requires that the “**BT computer system**” be “**controlled by a behavioral targeting company (BT company)**,” and in Meyer, the recited “**BT company**” corresponds to a company associated with the account provider, such as the credit card issuer VISA. The ’615 patent does not provide an express definition of “**BT company**,” but describes it as a company that “specialize[s] in targeting ads based on observed behavior of sites’ visitors.” (’615, 2:5-8.) As explained in more detail for claim 9(d) below, the account provider computer in Meyer, under the proposed combination, specializes in targeting incentives to its members based on, among other things, the observed behavior of its members including previous times when they have viewed and clipped incentives.

(Meyer, *e.g.*, 37:56-38:14.) The account provider computer targets these incentives by, as explained in claim 9(a) and 9(d) below, arranging for a cookie (“**tag**”) to be placed on consumer computers and used to determine the identity of the user, which is then used to target an incentive for the user when it visits a website. I will provide a full explanation of the targeting features of Meyer in my discussion of claim 9(d) below. And as explained for claim 9(d) and in connection with **Ground 2** below, it would have been obvious to implement the proposed combination such that the computer operated by the account provider (“**BT company**”) is responsible for targeting ads to website visitors based on, for example, the visitors’ demographic information and their observed (and previously recorded) behavior.

80. I note that the ’615 patent describes, in one embodiment, a “**BT company**” who acts as an “agent” on behalf of another publisher to purchase ads on behalf of the publisher. (’615, 2:5-13.) But the ’615 patent makes clear that the “**BT company**” may itself be a publisher or advertiser, and thus, need not act as an agent for another company. (’615, 2:14-15 (“The placement of cookies allows those publishers or the BT company itself to sell ads to advertisers.”), 2:19-20 (“The BT company may buy the media on behalf of itself or on behalf of the publisher...”), 2:30-32 (“Such a publisher, acting without an agent, is also included in the definition of a BT company.”).) As explained below, under the proposed combination, the

account provider in Meyer (“**BT company**”) can have its own incentives delivered to this party websites using the disclosed incentive system.

81. Therefore, as explained in more detail below, Meyer discloses and renders obvious a BT company computer system that is “**structured and programmed to perform a method of directing electronic advertisements.**” The proposed combination, as described below, renders obvious the method as further described in claims 9(a)-9(d). Finally, as noted, the language immediately after the preamble but before claim 9(a) recites “**automatically with the BT computer system.**” As I will show below, the proposed combination renders obvious the performance of each of the acts recited in claims 9(a)-9(d) “**automatically with the BT computer system**” as recited.

- (a) “**at a first time, arranging for a third party computer system controlling advertising space on a plurality of third party media properties to electronically tag a first computer of a first visitor visiting a first website, without transferring to the third party computer system any profile information related to the first visitor, which tag is readable by computers operating under a domain of the third party computer system and identifies the visitor computer as associated with the BT company;**” (Claim 9(a))

82. As noted in the discussion of the preamble, the “**third party computer system**” in Meyer takes the form of incentive information computer **105** with its

associated incentive database 107 as shown in Figure 1:

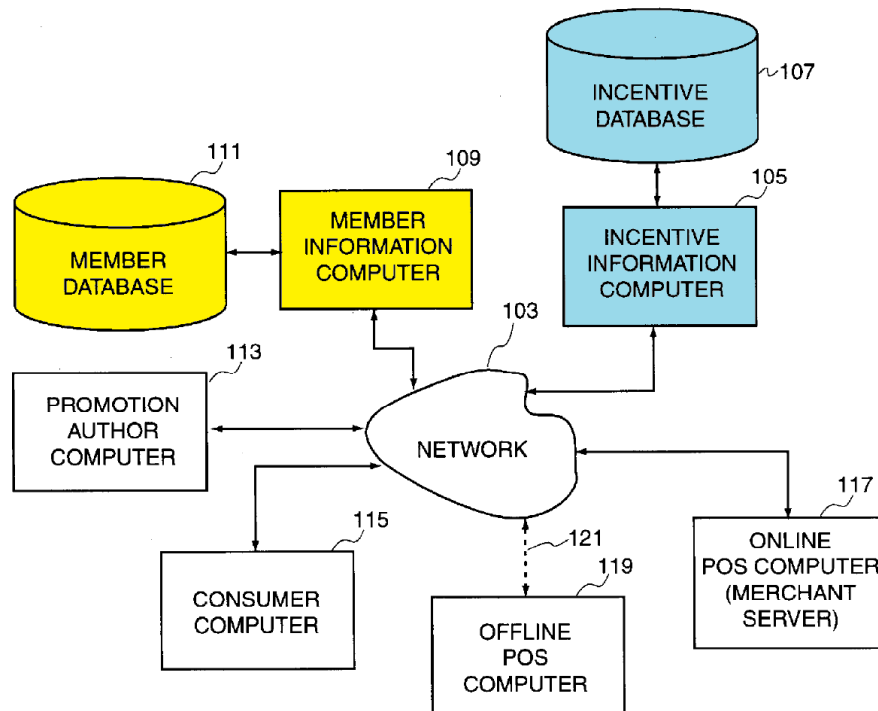


Fig. 1

(Meyer, Fig. 1 (highlighting added).) “The incentive information computer 105 is a computer which holds incentive information, the incentive information in the form of a database (incentive database 107).” (Meyer, 18:18-20.)

83. Meyer further states that the incentive information computer 105 is “typically run by the service provider.” (Meyer, 18:20-22; *see also id.*, 16:36-37 (“A service provider is the entity (typically a company) that runs the incentive system described herein.”).) For purposes of my analysis, therefore, I will refer to

the incentive information computer 105 as the “*service provider computer*” consistent with its description throughout in Meyer. (Meyer, *e.g.*, 31:22-23 (“... the service provider computer (also called the incentive information computer) 105.”).)

84. Meyer makes clear that incentive information computer 105 (service provider computer) and member information computer 109 (account provider computer) can be a single computer or can be separate computers. (Meyer, 19:6-10.) The service provider and account provider can also be the same or different entities. (Meyer, 16:36-38 (“A service provider is the entity (typically a company) that runs the incentive system defined herein.”), 16:39-41 (“An account provider is an entity that manages data about members, including maintaining all the necessary databases of information about the members.”), 18:42-45 (noting that account provider and service provider could be “the same entity” or account provider could “retain[] the service provider”).) But for purposes of my analysis, I am relying on embodiments in Meyer in which the account provider and service provider are not the same entities, such that the account provider computer and service provider computer are separate computers. (Meyer, 19:8-10 (“[I]n other embodiments, the member information computer 109 may be separate from the incentive information computer 105.”).) In this embodiment, the service provider computer qualifies as a “**third party**” computer system because it would have been owned and operated by

an entity different from the “**BT company**” that operates the “**BT computer system**.” The service provider in Meyer, under this embodiment, would thus have been a “**third party**” with respect to the account provider.

85. It would also have been obvious, based on Zeff, *Advertising on the Internet* (2d ed. 1999), Ex. 1004, to implement Meyer such that the account provider and service provider computers are separate, and owned and operated by different entities. Zeff confirms that, as of its 1999 publication date, third party companies had commercialized services known as “ad networks” such as the well-known “DoubleClick” ad network. (Zeff, pp.0065, 00130-00131.) The ’615 patent itself acknowledges DoubleClick as prior art (’615, 1:36-2:4), and concedes that certain aspects of the electronic tagging process are “similar” to how DoubleClick operated (’615, 5:21-25). The ’615 patent also states that the “**third party computer system**” (which the written description refers to as a “second media property”) can be an ad network server that controls advertising space on third party websites. (’615, Fig. 3 (second media property **50**, “AD NETWORK SERVER”), 10:26-29 (“In FIG. 3, second media property **50** is shown as an ad network’s site (where the ad network represents the ad space of different sites, **60**, **61**), as described above.”).)

86. Zeff explains that an “ad network” essentially operates as a middleman or intermediary between (a) a company that wants to advertise on third party

websites, and (b) third party websites on the Web that can display advertisements.

As explained in Zeff:

[A]n ad network brings together a group of sites with advertising inventory to sell in order to offer greater access and ease to publishers and advertisers alike. For publishers, this means access to more advertisers through the network's salesforce; for the advertisers, this means that with one buy they can purchase impressions on a host of sites. As the cliché promises, there is power in numbers, and ad networks bring together the power of a selling block to individual sites.

(Zeff, pp.00130-00131.) Zeff explains that the DoubleClick system “is an example of an advertising network... A media buyer can make one purchase with DoubleClick and have an ad placed on dozens of sites.” (Zeff, p.0065.) DoubleClick provides just one well-known example of an ad network – Zeff identifies dozens of other companies that also offered ad network services. (Zeff, p.00130, Table 10.2; *see also id.*, pp.00141-00149.) For example, Zeff also identifies Flycast, “an ad network with more than 700 sites that reaches more than 12 million people each month,” which “also sells ads in real time.” (Zeff, p.0083.) “Advertisers can negotiate with a Flycast representative and buy inventory weeks or months before a campaign begins, or buy inventory in Flycast's real-time bidding for space.” (Zeff, p.0084.)

87. The ad network model described in Zeff involves at least two separate and distinct entities: (1) a company such as DoubleClick that provides ad network services and (2) a company that wishes to use an ad network service to place advertisements on third party websites. In Meyer, the service provider (incentive information computer 105) performs functions highly analogous to conventional ad networks as described in Zeff, because the service provider acts as a broker between advertisers and third party websites with respect to advertising space on those websites. For example, like an ad network, the service provider in Meyer manages advertising space across third party websites on the Internet, as explained in great detail in the next section, by facilitating the placement of incentives on those websites on behalf of advertisers.

88. The account provider (member information computer 109) in Meyer, on the other hand, is analogous to an advertiser in the ad network model described in Zeff. As noted, in one embodiment, the account provider in Meyer could be a credit card issuer such as VISA who sponsors its own incentives. (Meyer, 26:19-22; *see also id.*, Fig. 22 & 33:10-14 (“The particular example of FIG. 22 is for incentives sponsored by a credit card external membership organization....”), 30:23-32 (“In some situations, an external membership organization, for example... a particular credit card organization (members are defined as holders of the particular

credit card), sponsors incentives....”).)

89. **Rationale and Motivation to Combine (Meyer with Zeff):** As noted, Meyer already contemplates that the account provider and service provider computers could be separate computers run by different entities, but I have cited Zeff to provide further support and additional motivations to implement Meyer in this fashion. It would have been obvious to combine Meyer with Zeff, predictably resulting in the incentive system of Meyer in which the account provider and service provider computers are separate computers, owned and operated by different entities.

90. At the outset, Meyer and Zeff are analogous references. Meyer and Zeff are analogous references in the same field as the '615 patent because they disclose techniques for presenting advertisements on the Internet. Both references also disclose techniques for displaying advertisements across multiple third party websites. As noted, the '615 patent itself identifies ad networks such as DoubleClick as relevant prior art ('615, 1:36-2:4), and concedes that certain aspects of the patent's electronic tagging process are “similar” to how DoubleClick operated ('615, 5:21-25). Meyer and Zeff are also reasonably pertinent to a number of problems faced by the '615 inventor in implementing the alleged invention, which I will discuss below, including how to use cookies on user computers to identify users on third party

websites, how to actually place advertisements on third party websites, and how to structure the relationships between the various entities in the advertising system to maximize revenue and profit.

91. An ordinarily skilled artisan would have been motivated to implement the Meyer incentive system to have the account provider and service provider computers be separate and owned and operated by different companies. As noted, Meyer itself confirms that the service provider and account provider computers can be separate computers, and that the service provider and account provider need not be the same entity. (Meyer, 19:6-10, 18:42-45.) This arrangement would have provided the distinct benefit of allowing the two entities to focus on the particular services in which they specialize. For example, this arrangement would have benefitted the service provider – whose responsibilities in Meyer are analogous to those of a conventional ad network – by allowing it to focus on identifying third party websites that can display incentives and managing relationships with those websites, without the burdens and distractions associated with operating a larger account provider business such as a credit card issuer. This arrangement would also have allowed the service provider to offer its incentive placement services to a potentially large number of potential advertiser customers – and not just the account provider – consistent with the way conventional ad networks offered ad placement

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services to a large number of advertisers. In short, separating the service provider from the account provider's business would have allowed the service provider to provide a more effective, more efficient, more broadly applicable, and in the end more profitable, incentive placement service.

92. And for the account provider, having it be separate from the service provider would have allowed it to focus more closely on its core membership services business. Using the example in Meyer of a credit card issuer, this arrangement would have allowed the account provider to focus on its credit card issuer services, without the burdens and distractions associating with advertising on third party websites including identifying those websites or managing separate relationships with them – functions that might fall outside the account provider's expertise. Zeff explains that for the advertiser, ad networks (which serve a function analogous to the Meyer service provider), “help navigate through the high volume of sites offering advertising.” (Zeff, p.00131.) “Buying ads separately on the ever-growing number of sites can be a daunting task; you have to make your way through separate sales forces, individual rate sheets, and a myriad of audience demographics. When you work with a network, you are in contact with just one experienced sales force made up of people who know the online advertising business.” (Zeff, pp.00131-00132.) As applied to Meyer, having the account provider be separate

from the service provider would have allowed the account provider to leverage the expertise of the service provider who has established advertising placement relationships with a potentially large number of participating websites. (Zeff, p.00131 (“With an ad network, the media buy can call in the morning and have an ad running on a slate of sites that same day.”).)

93. At a more basic and fundamental level, it would have been obvious for the account provider and service provider in Meyer to be separate companies simply because such an arrangement would have mimicked the ad network business model that had organically developed for selling Internet advertising, and that was already well-known and successful well before June 2006. As noted, there were dozens of ad networks in operation by the publication of Zeff in 1999. (Zeff, p.00130, Table 10.2; *see also id.*, pp.00141-00149.) By adopting the roles and responsibilities of an advertiser and an ad network, both the account provider and service provider in Meyer would have realized the known benefits of the ad network model.

94. An ordinarily skilled artisan would have had at least a reasonable expectation of success in implementing Meyer in this way. Dividing tasks among multiple computers was a routine implementation detail that, as Meyer acknowledges, would have been known to ordinarily skilled artisans. (Meyer, 19:6-15.) And ensuring that the account provider and service provider are separate

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entities would have presented no obstacle to an ordinarily skilled artisan as it is more of a business and/or legal consideration rather than a technological detail. As noted, the separation between advertisers and ad networks was already well-known. The combination of Zeff and Meyer described in my Declaration could have been implemented using conventional programming techniques. Meyer and Zeff provide more than sufficient detail to implement the particular features upon which I rely, without undue experimentation.

95. Now turning back to claim 9(a), Meyer further discloses that the service provider computer (“**third party computer system**”) controls “**advertising space on a plurality of third party media properties.**” As explained for the preamble, Meyer discloses a system for distributing advertisements that are accessible through incentive “existence messages” (such as icons) displayed on web pages on the Internet. (Meyer, *e.g.*, 8:6-11, 27:65-28:9.) The “**plurality of third party media properties**” in Meyer therefore takes the form of a plurality of websites in which incentive icons can be displayed:

Consumers find displays of the incentive icons (or icons that generate incentive icons) in a variety of places on the Internet: manufacturer Web sites where products are described; retailer Web sites where products are sold; affinity Web sites for special interests such as entertainment, sports or travel; ad banners on Web pages and e-mail.

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(Meyer, 27:66-28:4.) The examples of web sites mentioned above qualify as “**media properties**,” as claimed. This is consistent with the ’615 patent, which expressly identifies a web site as an example of a media property. (’615, *e.g.*, 3:31-36 (“A tag generally is a unique identifier used to mark a person electronically visiting a media property, such as a web site....”), 9:23-28 (“The media properties can be of the same kind of media (e.g. two web sites 40, 60 on the Internet 80)....”).) These websites also qualify as “**third party**” media properties because they belong to third parties, such as manufacturers or retailers mentioned in Meyer above. Meyer explains that an incentive icon can appear, for example, on a merchant website for “Circuit City,” referring to a national electronics retailer that was well-known as of June 2006. (Meyer, 24:34-38; *see also id.*, 49:67-50:4 (identifying example of Sony Camcorder incentive that appeared on “Crutchfield’s Online” website).) It would have been obvious that the exemplary manufacturer, retailer, and affinity web sites in Meyer, among others, would have included websites run by entities who are different from and unaffiliated with the account provider (“**BT company**”) and the service provider who runs the service provider computer (“**third party computer system**”).

96. Meyer further discloses that the service provider computer (“**third party computer system**”) controls “**advertising space**” on these media properties, because it controls the display of the incentive icon on them:

When a consumer turns to a Web page that contains an icon, process ICON_DSPLY is started, preferably by running JavaScript that is enabled on the page, or alternatively by an applet loaded from the service provider provides, or by a JAVA servlet run as part of the service provider process. Which of these is used is dependent on the complexity of the icon, as would be clear to those of ordinary skill in the art. In the case of a servlet, the display of the icon is implemented in the preferred embodiment by including a URL on the page on the Web where the icon is displayed, the URL pointed to the service provider Web site and used to retrieve the image displayed by the incentive icon. The URL points to a general purpose JAVA servlet, specifies that it wants the incentive's icon, and includes an argument with an identifier for the appropriate incentive.

(Meyer, 28:4-19.) As the passage above confirms, in a preferred embodiment, a “JAVA servlet” retrieves the incentive icon for display on web site, in response to a URL placed on the third party website. The term “servlet” refers to a JAVA program that executes on a server, such as a web server. (Meyer, 15:47, 55:19-20, 56:26-31.) The JAVA servlet in Meyer, as shown above, is “run as part of the service provider process.” (Meyer, 28:8-9.) Meyer explains that “the service provider process (SRVPRVD) 307 [Fig. 3] is a set of computer programs operating on the incentive information computer 105,” *i.e.*, the service provider computer. (Meyer, 19:56-58.) The passage quoted above also confirms that the JAVA servlet is identified by a

URL pointing to the “service provider” website. (Meyer, 28:14-16.) Meyer therefore discloses that the service provider computer (“**third party computer system**”) “**control[s] advertising space on a plurality of third party media properties,**” as claimed, because the service provider computer controls display of incentive existence messages (icons) on third party web sites. The “**advertising space**” in Meyer thus corresponds to the space on those third party websites where incentive icons can be displayed.

97. Meyer also discloses and renders obvious that the BT computer system, “**at a first time, arrang[es] for a third party computer system... to electronically tag a first computer of a first visitor visiting a first website,**” as claimed. This occurs when the service provider computer (“**third party computer system**”), working with the account provider computer (“**BT computer system**”), places a cookie on the consumer computer of a website visitor. The “**first website**” in Meyer takes the form of a third party website in which the incentive icon was displayed, as I will explain in more detail below.

98. I will describe this process in detail below. But in broad overview, Meyer describes a multi-step process in which (1) a user can visit a third party website using a consumer computer, (2) an incentive on that website is activated, (3) the incentive has “display requirements” in which certain information about the user

(such as demographic information) must be obtained to display the incentive, (4) the system checks to see if the user is currently a member; if **not**, an enrollment process takes place that ultimately results in storage of a cookie on the consumer computer.

99. More specifically, as explained above, a third party website can display an incentive icon that, when activated (either manually or automatically), results in the display of details about the incentive. (Meyer, *e.g.*, 29:36-39 (“Once the consumer views an incentive icon, the consumer may click on an incentive icon to pop up a description of the promotion, which may be an incentive to purchase a particular product, a sweepstakes entry, etc.”), 30:66-31:4 (“When a user clicks on an incentive icon, embedded JavaScript is run to cause a pop-up window of the incentive to appear. The JavaScript deals with the shape, location, size, etc., The actual contents of the window is determined by a servlet running on the incentive information [*i.e.* service provider] computer.”); *see also id.*, 10:54-56 & 11:7-13 (icon activation may occur automatically).) Meyer explains that an incentive that has been activated may optionally have information that Meyer calls **display requirements**, which specify “[w]hat consumer information (stated interests, demographics, membership in an external membership organization etc.), if any, must be available before the incentive is displayed to the consumer.” (Meyer, 23:54-58.) Display requirements can include, for example, “a requirement for the

consumer to disclose their age, or shopping habit, or a requirement for membership in an external membership organization.” (Meyer, 32:7-11.) For purposes of my analysis of claim 9 and the prior art, I am relying on the embodiment in Meyer in which incentives **have** display requirements.

100. Meyer explains that if an incentive icon is activated, and the incentive **has** display requirements, the system invokes a “Get_Member_ID” procedure which, as its name implies, obtains the ID of the consumer who clicked the incentive icon. (Meyer, 32:47-55, Fig. 7 (701).) But if the consumer is not yet a member, “procedure Sign_On shown as **801** in FIG. 8 is called to enroll the new member.” (Meyer, 32:61-62.) That Sign_On procedure, as explained below, results in “**electronically tag[ing] a first computer of a first visitor visiting a first website,**” as recited in claim 9(a).

101. More specifically, the enrollment procedure in Meyer presents a series of pop-up windows that prompt the user to enter personal and demographic information, such as name, address, age, sex, etc., such as the exemplary screens shown in Figures 22 and 23:

2213 2215

VISA iSave - Microsoft Internet Explorer

VISA iSave
Sign Up

Please provide the requested information to set up your personal iSave Account. Already a member? [Click here](#). For privacy policy, see our site at [www.iSave.net](#)

First Name: Steve

Last Name: Bartlett

Email Address: sbartlett@iq.com

Password: ****

Retype Password: ****

Visa Number: 4128 777 888 9990

Finish

2201 2206 2207 2209 2203 2211 2205

Fig. 22

Name: Helen

Password: Smith

Email: hsmith@aol.com

Address: 222 Vine Street

City: San Geronimo

State: California

Zip: 92002

Age: 45

Sex: Female

Submit Reset

2301

Fig. 23

(Meyer, Figs. 22-23.) Figure 22 shows a “Sign-Up Screen for signing up a new member or confirming membership of an existing member,” and Figure 23 “shows the second Pop-Up Screen for signing up a member, shown here filled in for one member” (Meyer, 14:59-64; *see also id.*, 33:5-6). Meyer continues by explaining:

Once the member information is entered, an account is set up for the member, the ACCTPRVD [account provider] process is accessed to assign a member ID and to store the member information in MMBR-DB [account provider database]. The member ID is sent from MMBR-DB, and a cookie is written in consumer computer 115.

(Meyer, 33:30-34.) The “ACCTPRVD” referenced above refers to “a set of computer programs operating on the member information computer 109,” *i.e.* the

account provider computer. (Meyer, 20:14-16.) “MMBR-DB” refers to the member database **111** of the account provider computer, as shown in Figure 1 and discussed previously. (Meyer, 21:18-20.) Meyer further explains that the cookie stored on the consumer computer is used to identify the member:

A cookie is a small piece of information stored on a client machine, for example as a file. Cookies are used in the preferred embodiment of the invention in a consumer’s computer to identify the member to the service provider process SRVPRVD.

(Meyer, 56:14-18.) To summarize, after a user enters its personal and demographic information, a member ID is assigned to the member by the account provider computer (“**BT computer system**”), and stored as a cookie on the consumer computer (“**a first computer of a first visitor**”).

102. This process discloses “**at a first time** [*i.e.* when the consumer creates a new account], **arranging for a third party computer system controlling advertising space on a plurality of third party media properties** [*i.e.*, the service provider computer which controls incentive icon display on third party websites as discussed above], **to electronically tag a first computer of a first visitor visiting a first website** [*i.e.* to store a cookie on the consumer computer that is visiting the third party website],” as claimed. I note that mapping storage of a cookie in Meyer

to the claimed electronic tagging is consistent with the '615 patent, which identifies a cookie as an exemplary tag. ('615, *e.g.*, 2:59-60 (“Such software can place a cookie or other kind of tag on the user’s computer.”); *see also id.* 13:53-54 (Dependent claim 4: “The method of claim 1 wherein the tag is a cookie stored on the first computer.”).)

103. The electronic tagging in Meyer also occurs “**automatically with the BT computer system,**” as recited in claim 9 immediately after the preamble. I note that this language does not require that the BT computer system itself actually perform the electronic tagging, and the surrounding language of claim 9(a) indicates that the “**third party computer system**” carries out the actual electronic tagging. As I will explain in more detail below, it would have been obvious that the service provider computer in Meyer (“**third party computer system**”) performs the electronic tagging, but as noted above, it carries out this process “**with**” the account provider computer system (“**BT computer system**”). This is because the account provider computer provides the actual member ID that is stored in the cookie. (Meyer, 33:30-34.) The account provider computer in Meyer is thus essential to the electronic tagging carried out by the service provider computer.

104. Additionally, the account provider computer in Meyer (“**BT computer system**”) “**automatically**” arranges for the tagging because, as explained, it provides

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the member ID without user involvement. (*E.g.*, Meyer, 33:30-34.) The tagging process in Meyer also occurs “**automatically**” because storage of the cookie on the consumer computer occurs as a result of functions by the software without user involvement. This is consistent with Meyer itself, which discloses an alternative embodiment in the entire enrollment process occurs automatically. (Meyer, 33:40-42 (“Alternative implementations may automatically sign-up a consumer if he or she is not yet a member and place a cookie in the consumer computer **115.**”).) It was well-known to ordinarily skilled artisans (and remains true today) that servers can send a standard HTTP response to a client system (*i.e.* “Set-Cookie”) to cause a cookie to be stored locally on the client system. (Meyer, 56:22-50.) Storage of the cookie occurs “**automatically**” on the consumer computer upon receipt of this response. Nothing in Meyer suggests that a user requested (or was even aware of) the storage of the cookie. Storage of cookies is so automatic and transparent, in fact, that users often have no idea they even exist. Zeff recounts a common complaint about cookies that they could “invade privacy by clandestinely placing a file on the user’s hard drive,” which why web browsers provide optional settings that enable

users to disallow automatic storage of cookies from websites. (Zeff, p.0051.)³

105. Although the user in Meyer may perform explicit actions to create a member account, such as entering requested information as part of the enrollment process, those actions precede, and are separate from, the claimed step of electronically tagging the first computer. This is consistent with the '615 patent, which describes placing tags on visitor computers in response to express user actions. ('615, 2:8-13 ("BT companies place a cookie (or cookies) on the computers of visitors to specific sections of a publisher's website or on the computers of visitors of the publisher who conducted a specific action such as search, click content, click

³ This is also the reason why jurisdictions in Europe and some states in the United States now require websites to obtain user consent prior to storing cookies locally on visitor computers. This has resulted in now ubiquitous (and oftentimes annoying) "Allow Cookies" popups that appear on many websites today. I note that these popup windows are common today but far fewer websites had them in June 2006. Most websites as of June 2006 that placed cookies on visitor computers would likely have done so without obtaining prior consent and without notifying the visitors that cookies had been stored.

an ad, request information, acquire a product, etc.”).) The ’615 patent thus contemplates that automatic placement of a tag may occur following explicit user action at the first website, so long as placement of the tag itself was automatic – which it would have been under the proposed combination.

106. The electronic tagging also occurred while the consumer was “**visiting the first website**,” as claimed. This is because the enrollment process occurred, as explained above, as a result of activating an incentive icon while visiting the third party website (“**the first website**”) on which the incentive icon appeared. The enrollment process in Meyer uses pop-up windows (*e.g.* Figs. 21-22), but the process nevertheless occurs while “**visiting the first website**,” for several reasons. First, the pop-up windows in Meyer are created by JavaScript programs directly embedded into the web page on which the incentive icon appears (“**the first website**”), and they execute on the consumer computer. (Meyer, 30:61-31:2, 19:42-55, 54:44-46.) It was well-known that pop-up windows such as the ones described in Meyer did not cause navigation away from the website the user is currently visiting. As Meyer explains, “[o]ne of the aspects of the present invention is that such use of pop-up windows to display incentives and other information, such use not necessitating the member’s leaving whatever page he or she was viewing on the browser on consumer computer 115.” (Meyer, 31:4-8; *see also id.*, 8:43-48 (“In the preferred embodiment,

this action causes a new display window (e.g., a popup window) to appear, the displaying of the parameters occurring therein. In this way, the incentive may be viewed by the consumer without the consumer leaving the window, for example the Web page, where the icon originally appeared.”), 45:22-26 (“When a user wishes to view an incentive, the incentive pops up in a small window allowing the user to stay in the context—e.g., the Web page describing the product or the purchase location page.”).) The enrollment process described in Meyer detailed above, which resulted in the electronic tagging of the first computer, thus occurred while the consumer was “**visiting the first website,**” *i.e.*, visiting (via the web browser) the third party website on which the incentive icon appeared, because the enrollment pop-up windows do not cause the consumer to leave the “**first website.**”

107. I understand that Patent Owner could potentially argue that the use of pop-up windows for the enrollment process in Meyer somehow means that the consumer was not “**visiting the first website**” when the electronic tagging occurred. This argument would be incorrect because, as noted, an ordinarily skilled artisan (based on Meyer and general knowledge about website design) would have understood that pop-up windows do not cause the consumer to leave the first website. Rather, a pop-window is a *temporary* widow, overlaid on a web page, to gather some information which, when entered, causes the pop-up window to

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disappear, leaving the user back at the main website original page in entirety. But even if there was a basis for this argument, Meyer discloses an alternative embodiment in which, in response to activation of an incentive icon (existence message), a display of incentive information, or becoming a member of the incentive system, can take place in the same window rather than a pop-up. (Meyer, 8:49-58 (“In another version, the displaying of the parameters [of the incentive] occurs in the same window where the existence message appeared. In the version that includes the consumer joining, i.e., becoming a member of the incentive system by providing consumer identification data which is then stored in a member database coupled to a member information computer connected to the network, occurrence information about displaying the one or more parameters is recorded....”).) It thus would have been obvious to implement the enrollment process in Meyer using the same window in the web browser which the third party website is displayed, thus obviating the need to use a pop-up window. This would have provided a benefit of streamlining the user interface by avoiding the need to spawn new pop-up windows, which some users would likely have considered intrusive, distracting, or otherwise annoying. (See Michael Miller, *Building Really Annoying Websites* (2001) [Ex. 1009], p.0021 (“All Internet users *hate* these things—which makes the lowly pop-up window the number-one annoyance on the web.”) (italics in original); *id.*, p.0025 (“Pop-up

windows are, without a doubt, the single most annoying effect you can put on your Web pages. (They're also the most asked-about special effect; everybody hates them but wants to know how to make their own!)).) The user interface benefits of placing information in the same window instead of popping up a new window would have been well-known to persons of ordinary skill in the art, and as such, it would have been obvious to implement all of the features shown in pop-up windows in the same web browser window as discussed in Meyer. Activating an incentive icon would therefore have predictably resulted in display of the incentive, and if the viewer was not currently a member, presentation of the enrollment process user interface discussed above – all taking place within the same web browser window displaying the third party website (“**first website**”) where the incentive icon appeared.

108. Next, the electronic tagging in Meyer occurs “**without transferring to the third party computer system any profile information related to the first visitor,**” as claimed, for two reasons. First, a person of ordinary skill in the art would have understood that the act of storing a cookie on the consumer computer in Meyer does not involve transfer of any profile information to the third party computer system. Nothing in Meyer suggests that, in connection with the act of storing the cookie on the consumer computer, any “**profile information related to the first visitor**” is transferred to the service provider computer. The '615 patent describes

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“profile information” as including demographic information about a user, observed behavior about a user, or user-provided information. (’615, *e.g.*, 3:40-44, 2:37-43.)

With Meyer, the only information potentially transferred to the service provider computer during the enrollment process is the member ID which, as noted, is placed in a cookie stored on the consumer computer. But the member ID is not itself

“**profile information**” relating to the first visitor – as explained in more detail for claim 9(b) below, the member ID is a unique identifier for identifying the member and retrieving its information from the account provider database. (Meyer, 59:33-

39, 60:59-58.) The member ID *itself* does not contain, and cannot by itself be used to derive, any profile information. Meyer shows exemplary information from an

account provider database in which the member ID is “206.14.232.41:cee609ea3c:0” which appears to be an IP address coupled with some type of unique identifier.

(Meyer, 60:58-63 (explaining that “iqitem_id” provides the member ID) & 61:45,

61:48, 61:50, etc. (showing “iqitem_id” value of “206.14.232.41:cee609ea3c:0”),

59:37-40 (unique identifier).) This information does not reveal anything about the

member’s demographic information or its past behavior. This is confirmed by the

fact that Meyer explains that a third party merchant cannot access a member’s

behavioral or demographic information even if they know its member ID. (Meyer,

49:33-37 (“In the preferred embodiment, only a member has access to the incentives

clipped by that member. A merchant, for example, would not have access to that data, even if the merchant knew that the consumer was a member and knew the member ID of the member.”), 47:28-34, 48:24-26 (“[M]erchants are not able to access a member’s demographic and clip data....”).) The member ID cookie described in Meyer is also consistent with exemplary embodiments in ’615 patent that describe a cookie including an identifier (ID) that can be used find records in a database, which can include an IP address. (’615, 3:27-30, 4:39-44.)

109. I also note that the overall process in Meyer of enrolling the user by soliciting demographic information only causes the user-provided member information (“**profile information**”) to be transferred to and stored on the account provider computer (“**BT computer system**”), and not on the service provider computer (“**third party computer system**”). As I will explain below, the service provider computer under the proposed combination does cause the cookie (tag) to be stored on the consumer computer, but during the enrollment process, the collected demographic information is only transferred to the account provider computer. More specifically, as Meyer explains, “[o]nce the member information is entered, an account is set up for the member, the ACCTPRVD [account provider] process is accessed to assign a member ID and store member information in MMBR-DB [member database].” (Meyer, 33:30-33.) Meyer confirms that the account provider

process (ACCTPRVD) is a process that runs on the account provider computer. (Meyer, 20:14-16 (“The account provider process (ACCTPRVD) **331** is a set of computer programs operating on the member information computer **109** [account provider computer].”).) Meyer further explains that the enrollment process is controlled by the account provider computer:

The member information display process shown in FIG. 3 as the consumer (account provider scripts/servlets) process **323**, a set of programs managed by the account provider for carrying out the interactions that occur at the consumer computer **115**. These operations include the consumer interactions of enrolling as a member, etc. (consumer interactions module **325**), viewing and displaying account information such as displaying a member’s clipped incentives (module **327**) and displaying a member’s account information (module **329**). Process **323** preferably is implemented by running JavaScript scripts on consumer computer **115** preloaded or loaded to run on consumer computer **115** embedded in HTML generated by JAVA servlets that run on the member information computer **109** [*i.e.* account provider computer].

(Meyer, 19:42-55.) Accordingly, while Meyer makes clear that user-provided member information collected during the enrollment process is transferred to the *account provider* computer, nothing in Meyer suggests this information is transferred to the *service provider* computer (“**third party computer system**”). It

would also have been obvious to implement the system of Meyer to not transfer member information to the service provider computer during the enrollment process, as the service provider computer does not include the member database for storage of such information. The transfer of membership information collected during enrollment to the service provider computer, in other words, would have served no purpose.

110. And in cases where the service provider and the account provider computers are controlled by separate companies, as would be the case under the proposed combination, transferring demographic and personal information to the service provider computer could potentially jeopardize the privacy of sensitive member information. Meyer recognizes the importance of member privacy by providing means of protecting member information, including by encrypting it and preventing its access by third party merchants. (Meyer, 47:42-47, 48:5-13, 48:24-26.) An ordinarily skilled artisan would thus have been motivated, in an embodiment of Meyer which the service provider and account provider are separate companies, to implement the incentive system to not transmit member information to the service provider computer. As I will explain in connection with claim 9(d) below, well-known concerns over maintaining privacy of member information would have provided a powerful motivation to implement Meyer in this manner.

111. Finally, Meyer discloses that the **“tag is readable by computers operating under a domain of the third party computer system and identifies the visitor computer as associated with the BT company,”** as claimed. With respect to the latter part of this claim limitation, that the tag in Meyer clearly **“identifies the visitor computer as associated with the BT company,”** as explained above, the cookie stored on the consumer computer (the **“tag”**) identifies the member ID of the consumer. That member ID is clearly **“associated with the BT company”** because the computer system of the BT company (the **“BT computer system”**), *i.e.*, the account provider computer, issued the member ID. (Meyer, *e.g.*, 33:30-34 (“Once the member information is entered, an account is set up for the member, the ACCTPRVD [i.e. account provider] process is accessed to assign a member ID and to store the member information in MMBR-DB [account provider member database]. The member ID is sent from MMBR-DB, and a cookie is written in consumer computer **115.**”).) Meyer further explains that the account provider computer (**“BT computer system”**) uses the member ID to obtain membership information from its database. (Meyer, *e.g.*, 32:37-40 (“If the user is a member, then the member ID is used, and the ACCTPRVD process is accessed to obtain the required membership information from the database MMBR-DB **111.**”).) In fact, the account provider database is a relational database that uses the member ID of a

particular member as an index to locate all the rows of information for that member. (Meyer, 59:33-39.) Therefore, the cookie (“**tag**”) in Meyer “**identifies the visitor computer as associated with the BT company,**” because the cookie contains the member ID that associates the consumer computer with the account provider (“**BT company**”) by identifying a member account stored on the BT computer system.

112. With respect to the former part of this claim limitation, that the “**tag is readable by computers operating under a domain of the third party computer system,**” this recites nothing more than well-known characteristics of industry standard cookies. As Meyer explains, a typical way of storing a cookie is to send the following “Set-Cookie:” information to the consumer computer using HTTP:

```
Set-Cookie:  
name=value  
[;EXPIRES=dateValue]  
[;DOMAIN=domainName]  
[;PATH=pathName]  
[;SECURE]
```

(Meyer, 56:27-33 (highlighting added).) The “Set-Cookie” response in Meyer shown above would have been basic knowledge of any ordinarily skilled artisan as it was the industry-standard HTTP response for sending a cookie for storage on a user computer. (Meyer, 56:23-25, 56:44-45.) As shown in yellow highlighting

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above, one of its attributes is “DOMAIN=domainName” which, as its name suggests, “specifies the domain attributes for a valid cookie....” (Meyer, 56:37-38; *see also id.*, 56:46-50.) The “DOMAIN” attribute holds the name or internet address of a website; for example, “uspto.gov” is the domain for the Patent Office website. (Meyer, 55:47-54.) Web servers operating at the “DOMAIN” specified for a cookie, in turn, will then be allowed to read the cookie when the consumer computer contacts the server. If the DOMAIN for a cookie is “uspto.gov,” for example, then web servers under at that domain (which respond to URLs that include “uspto.gov”) can read the cookie.⁴ As Meyer explains, “[i]ncluded in that information [the HTTP header] is a description of the range of URLs for which it is valid. Any future HTTP requests made by the client which fall in that range will include a transmittal of the

⁴ The PATH= attribute mentioned in Meyer is a standard optional attribute for specifying the paths within the specified domain that can access the cookie. For example, if DOMAIN is set to “uspto.gov” and PATH is set to “/docs”, then the cookie will only be accessible to the server when accessed through a URL that includes “uspto.gov/docs.” Setting the PATH to “/” will cause cookie to be accessible to the server at all URLs within the specified DOMAIN.

current value of the stated object from the client back to the server.” (Meyer, 56:46-50.) In other words, the cookie will be transmitted to – and thus readable by – the server if the consumer computer is accessing a URL and domain that matches the DOMAIN attribute. This limitation in claim 9(a), in other words, describes nothing more than industry-standard cookie behavior.

113. Meyer further confirms that the specific cookie at issue, which contains the member ID, is “**readable by computers operating under a domain of the third party computer system,**” as claimed. This is because, as Meyer makes clear, it is the service provider computer (“**third party computer system**”) that later reads the cookie from the consumer computer to identify the member. (Meyer, *e.g.*, 56:15-18 (“Cookies are used in the preferred embodiment of the invention in a consumer’s computer to identify the member to the service provider process SRVPRVD.”), 29:12-14 (“SRVPVRD asks the procedure [View_Icon] to obtain the member ID by looking for a cookie on the consumer computer **115.**”).) Meyer also makes clear that the URL embedded in the third party website, which results in display of the incentive icon and identification of the user, points to the service provider computer. (Meyer, *e.g.*, 28:11-16 (“[T]he display of the incentive icon is implemented in the preferred embodiment by including a URL on the page on the Web where the icon is to be displayed, the URL pointing to the service provider Web site and used to

retrieve the image displayed by the incentive icon.”), 29:5-21 (“The View_Icon procedure **40** by accessing provides SRVPRVD... [which] determines if the icon is a dynamically determined icon... If yes, SRVPRVD asks the procedure to obtain the member ID by looking for a cookie on the consumer computer **115**....”).) It thus would have been obvious – and in fact required – to implement Meyer such that the cookie was readable by the service provider computer.

114. And it almost goes without saying, it would have been plainly obvious that the service provider computer in Meyer would have been “**operating under a domain**” because it is accessible through the Internet. Meyer identifies an exemplary domain for the service provider computer (*i.e.* “iq.com”) and provides several exemplary URLs that point to the service provider computer at that domain. (Meyer, *e.g.*, 28:19-26, 31:14-16, 36:40-44.) In a practical implementation, therefore, the DOMAIN cookie attribute in Meyer would have specified the domain of the service provider computer (*e.g.* “iq.com”), thus rendering the cookie readable by the service provider computer operating under that domain.

115. Finally, I note that the claim limitation requires that the tag be readable by “**computers**” (plural), but this presents no issues with respect to Meyer. Meyer makes clear that the service provider computer, although shown as a single computer in Figure 1, could actually include “several computers” including distributed,

replicated, or redundant computers. (Meyer, 18:45-54 (“Again, while this description and the claims attached hereto refer to a single member information computer (element **109**) [*i.e.*, service provider computer] to which a single member database (element **111**) is coupled, these terms also include the case of several computers holding the data in one location or distributed over the network or in redundant form or any combination of these, and how to modify the details to include these multiple computer and multiple databases cases would be straightforward to one of ordinary skill in the art.”), 19:6-15.) It thus would have been obvious for the tag to have been readable by several computers operating under the domain of the service provider computer (*e.g.* “iq.com”).

Issue: Which Computer(s) in Meyer Cause the Cookie to be Stored?

116. Claim 9(a) recites “**at a first time, arranging for a third party computer system... to electronically tag a first computer of a first visitor visiting a first website,**” which appears to require that the third party computer system perform the actual electronic tagging. As explained, Meyer discloses that a cookie containing the member ID (“**tag**”) is in fact stored on a consumer computer, but it is unclear precisely which software and computer in Meyer was responsible for causing that to occur. Meyer discloses a variety of number of different ways of causing a cookie to be written to a consumer computer, including “with a CGI

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program, or a JAVA applet or servlet, or programmatically, with client-side JavaScript using the cookie property of the document object.” (Meyer, 56:19-22.) These techniques were not invented by Meyer; each of them represents a well-known way of causing a cookie to be stored based on code running on a server (in the case of a “CGI program” or a JAVA “servlet”), or on the client (in the case of JavaScript or a JAVA applet). But as explained below, it would have been obvious to implement the system of Meyer to arrange for the service provider computer (“**third party computer system**”) to cause storage of the cookie on the consumer computer.

117. An example of a server-side approach includes the example from Meyer, discussed in detail above, in which a server transmits the “Set-Cookie” HTTP response header to the browser, which causes the cookie to be written. (Meyer, 56:44-45 (“A server sends cookie information to the client in the HTTP header when the server responds to a request.”).) It would have been obvious to implement Meyer using this server-side approach such that after the enrollment process, the service provider computer (“**third party computer system**”) transmits a “Set-Cookie” HTTP response header to the consumer computer containing the cookie. This would have predictably resulted in the system of Meyer in which the account provider computer (“**BT computer**”) provides the member ID for the member to the service provider computer (“**third party computer system**”), which

in turn includes the member ID in a “Set-Cookie” message that the service provider computer transmits to the consumer computer. This would thus have predictably resulted in the service provider computer “**electronically tag[ging] a first computer of a first visitor visiting a first website,**” as recited in claim 9(a).

118. An ordinarily skilled artisan would have been amply motivated to implement Meyer in this way. Meyer itself confirms that server-side and client-side approaches represent two well-known alternatives in the finite universe of techniques for causing a cookie to be stored on a consumer computer. As such, an ordinarily skilled artisan would have found either technique apparent and obvious. Meyer itself provides an express motivation to use a server-side approach by describing the “Set-Cookie” technique described above as how cookies are “typically” manipulated. (Meyer, 56:22-23.)

119. This is further supported by Benay Dara-Abrams, *Supporting Web Servers* (2001) (“**Dara-Abrams**”) [Ex. 1010] which I have cited for purposes of confirming the motivation to adapt Meyer to use Meyer’s disclosure of using server-side logic to cause storage of the cookie, instead of a client-side approach. Dara-Abrams is a book that provides a series of interactive labs and exercises designed to teach aspects of web site development. (Dara-Abrams, p.0020.) Chapter 8, entitled “Reasons Why Developers Write Server-Side Script,” lays out several reasons why

using server-side software is often preferable to client-side scripts. (*Id.*, pp.0024-0028.) The author explains that, using client-side scripting, the developer is at the mercy of the particular web browser on the user computer. “Each web browser implements the various Web standards in a slightly different way,” and as such, “[c]lient-side code that works fine in Internet Explorer and Opera might crash in Netscape and be completely useless in Lynx....” (*Id.*, p.0024.) She explains that using server-side scripts can alleviate this problem:

These scripts were pieces of code that ran on the Web server, no on the user’s browser. By running code on a server, in a controlled environment, the whole question of cross-browser compatibility became moot. As long as the Web server returns nothing but HTML to the client, the Web application developer doesn’t have to worry about cross-browser quirks at all. One can almost picture Web developers breathing a sigh of relief as they began writing code in a server-side environment they could control, after struggling to produce client-side code that had to work in a variety of browser environments out of their control.

(*Id.*, p.0025.) Data-Abrams later posits the question, “[w]hen can you depend on client-side scripting for mission-critical logic?”, to which she responds: “Never. If there is a feature of your publicly accessible Web site that is absolutely critical—that your site cannot work without—under no circumstances should you rely on

client-side routines to perform that logic.” (*Id.*, p.0027.) An ordinarily skilled artisan would have regarded causing the member ID cookie to be stored on the consumer computer in Meyer as “mission-critical logic,” it is essential for later obtaining the member ID when a member subsequently visits third party websites, which in turn is used to identify the member’s characteristics and dynamically serve incentives based on those characteristics. (Meyer, 29:5-29, 38:11-13, 10:4-10.)

120. Dara-Abrams confirms that an ordinarily skilled artisan would have been motivated to implement Meyer such that software running on the service provider computer (“**third party computer system**”), rather than client-side scripts, causes the cookie to be stored on the consumer computer. This would have provided a distinct benefit of improved reliability and compatibility to the system of Meyer by eliminating a potential source of web browser compatibility issues. The principles espoused in Data-Abrams, at a broader level, are merely a restatement of the well-known best practice of favoring “lowest common denominator” programming techniques to maximize compatibility, over approaches that introduce dependencies and potential incompatibilities while offering no countervailing benefits. In this case, there is no apparent benefit to relying on a client-side script to store a cookie – it introduces potential browser compatibility issues while being no more effective at causing storage of the cookie on the consumer computer than the

server-side “Set-Cookie” technique in Meyer described above.

121. In addition to avoiding browser compatibility issues as identified by Dara-Abrams, an ordinarily skilled artisan would have understood that relying on server-side logic could have improved security of the system. This is because client-side scripts, because they run locally in the web browser of the consumer computer, are directly accessible to software on that computer and thus more prone to unauthorized tampering when compared to server-side code that runs in a centralized and more controlled environment.

122. It would also have been obvious to have the service provider computer, *rather than the account provider computer*, cause the cookie to be stored on the consumer computer, for at least two reasons. The first reason is straightforward – as Meyer itself makes clear, it is the service provider computer that reads the cookie to obtain the member ID, as noted previously. (Meyer, *e.g.*, 56:15-18.) It therefore would have been obvious – and required – to rely on the service provider computer to cause that cookie to be stored on the consumer computer. The ’615 patent itself acknowledges as much this by explaining, in the Background section, that “the only server that can read a cookie on a user’s computer is a server operating under the same domain as the server that placed the cookie on a user’s computer to begin with.” (’615, 1:44-46.) This was a well-known limitation of industry-standard

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cookies. (Zeff, Ex. 1004, p.0050 (“[T]he [web] server can only access cookies that it has placed; it cannot access cookies from other servers.”).) Because Meyer makes clear that the service provider computer is the one that reads the cookie, it would have been obvious that the service provider computer would have to have been the computer that causes it to be stored. It would also have been trivial for an ordinarily skilled artisan to implement the account provider computer to direct or otherwise cause the service provider computer to cause storage of the cookie on the consumer computer.

123. Second, the service provider computer in Meyer must be able to read the cookie – and thus must be the computer that causes it to be stored – in order for the service provider to decide whether or not a *dynamic* incentive icon can be delivered to the website visitor. Meyer explains that for an incentive that has display requirements (the embodiment on which I rely as discussed above), “SRVPRVD [the service provider process] asks the procedure [View_Icon] to obtain the member ID by looking for a cookie on the consumer computer 115. If no cookie is present, that is, the member ID is not valid, then the *default* icon is set and displayed.” (Meyer, 29:12-16.) In this scenario, therefore, service provider computer does not involve the account provider computer; because the website visitor was not a member, the account provider computer would not have had any member

information for that visitor. Conversely, Meyer explains that if the service provider computer does find a cookie with a member ID, then the account provider computer is accessed to obtain membership information used to carry out the *dynamic* icon selection process. (Meyer, 29:16-26.) In either case, in order for the service provider to decide whether a default or dynamic icon will be served, the service provider computer must be able to read the cookie from the consumer computer to determine whether or not the website visitor is a member. This, in turn, provides a further motivation to implement the incentive distribution system, under the proposed combination, to arrange for the service provider computer (“third party computer system”) cause the cookie to be placed on the consumer computer.

124. Having the service provider computer cause storage of the cookie on the consumer computer is also consistent with the overall division of labor contemplated in Meyer, in which the service provider computer is responsible for the direct interactions with consumer computers and third party websites in delivery of incentives, and the account provider computer is responsible for membership-related functionality. (Mayer, 16:36-37 (“A service provider is the entity (typically a company) that runs the incentive system described herein.”), 16:39-41 (“An account member is an entity that manages data about members, including maintaining all the necessary databases of information about the members.”).) It

thus would have made sense to rely on the service provider computer (“**third party computer system**”) to cause the cookie to be placed when a visitor encounters an incentive on a third party website, because it was the service provider computer that was responsible for making the incentive icon to appear on the website.

(b) “**recording, in a profile of the first visitor maintained by the BT computer system, profile information collected during the first computer’s visit to the first website;**” (Claim 9(b))

125. As explained in the discussion of the preamble, the system of Meyer includes an account provider computer (“**BT computer system**”) with member database **111** for storing member information. (Meyer, 18:35-39 (“The member information computer **109** [*i.e.* account provider computer] is a computer which holds consumer information, the consumer information the form of one or more databases (the member database **111**). The member information computer is typically run by the account provider.”), 21:18-20 (“The member database (MMBR-DB) **111** is a database in a storage system coupled to the member information computer **109** as shown in FIG. 1.”).)

126. The member database in Meyer (MMBR-DB) stores at least two types of profile information that were “**collected during the first computer’s visit to the first website.**” First, the database records the member’s demographic and other

information collected during the enrollment process while visiting “**the first website**” discussed for claim 9(a). (Meyer, 33:30-33 (“Once the member information is entered, an account is set up for the member, the ACCTPRVD [account provider] process is accessed to assign a member ID and to store the member information in MMBR-DB.”), 29:19-22 (“Such member information may include, for example, details of membership in some external membership organization, as well as other demographic information.”).) This demographic information can be used to target incentives to users, as explained for claim 9(d) below. (Meyer, *e.g.*, 38:10-13 (“For example, a Web page may retrieve and display an incentive icon for men’s clothing when the member is a male and for women’s clothing when the member is a female.”).)

127. Second, the member database on the account provider computer also includes an account database (ACCNT-DB) that records information about the member’s past behavior including, among other things, the member’s past interactions with incentives:

Part of the member database **111** is the account database (ACCNT-DB) of member incentive histories for each member. For each member, ACCNT-DB includes two lists: a list of all the instances of incentives that the particular member user has clipped, and a list of all the instances of incentives that the particular member user has redeemed

through purchases, etc. All other actions by the member, viewing the account, etc., also are recorded.

(Meyer, 21:22-29.) As shown above, the member database records instances in which the member has “clipped” an incentive. Clipping refers to a feature in which a member, when viewing an incentive, can select an option (for example by pressing the “Clip” button 2103 in Figure 21) to have the incentive saved in its account. (Meyer, 34:66-35:3, 36:27-31.) “Thus, in the preferred embodiment, the full information for each clipped incentive is stored in the consumer’s incentive account which resides in the MMBR-DB database.” (Meyer, 36:65-67.)

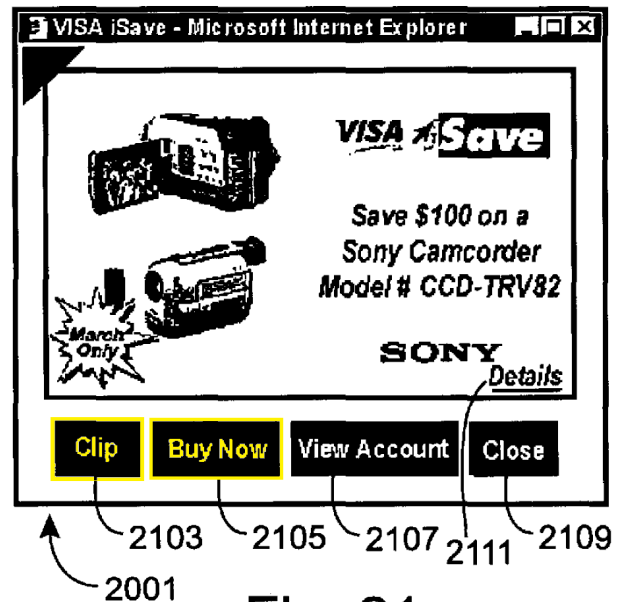


Fig. 21

128. The passage above also notes that the member database records instances in which the member has “redeemed” an incentive, which can occur if the user chooses to purchase the product (for example by pressing the “Buy Now” button 2105 shown in Figure 1). (Meyer, 40:44-51, 40:63-41:2.) “When the account provider process ACCNTPRVD is informed about a redeem action it updates the member’s account in ACCNT-DB by removing the incentive from the list of clipped

incentives (the history of clipped incentives field in ACCNT-DB) and adding the value of the incentive to the totals by category part of ACCNT-DB for the member.” (Meyer, 44:39-44.) Alternatively, a redemption can be recorded for an incentive without removing it from the list of clipped incentives. (Meyer, 44:47-49.)

129. Clipping and redeeming provide only two examples of behavioral information that is recorded in the member database. As the passage block-quoted above states, “[a]ll other actions by the member, viewing the account, etc., are also recorded.” (Meyer, 21:28-29; *see also id.*, 35:18-21 (“All actions by the user may [sic] such as interactions with any of these buttons, and even how long it takes a user to react to being presented with an incentive are, in an improved embodiment, recorded.”).) In fact, the mere instance of an incentive icon being displayed to a member (“viewing instance”) can also be recorded in the member database (MMBR-DB). (Meyer, 29:27-35.) The member database can also record the viewing of an incentive itself. (Meyer, 34:48-65 (“Once the incentive is displayed.... The SRVPRVD process **307** is accessed to record the view event.... Note that in alternative embodiments, this information may be stored in the member database.”).)

130. The demographic and behavioral information recorded for a member in Meyer clearly disclose recording “**in a profile of the first visitor** [*i.e.* the member’s account information recorded in member database **111**] **maintained by the BT**

computer system [*i.e.* the account provider computer],” which includes “**profile information collected during the first computer’s visit to the first website** [*i.e.* demographic and behavioral information about the member].” This is entirely consistent with the ’615 patent, which expressly refers to observed behavior, demographic information and user-provided information as examples of “**profile information.**” (’615, *e.g.*, 3:40-44 (“The profile could be the observed behavior of the visitor on the media property, demographic information collected on the media property, profile information provided by the visitor to the media property, etc.”), 2:37-43 (“[A]lthough the name ‘BT company’ implies the targeting of ads is based on collected behavioral profiles, a BT company may also collect other kinds of profile information, such as demographic information or user-provided information, and target ads to those visitors wherever found based on the collected profile information.”).)

131. For purposes of my analysis of claim 9, the demographic information and behavioral information separately and independently satisfy the claimed “**profile information,**” and alternatively, the two can be considered together to provide the claimed “**profile information.**” And as noted above, the member database 111 that records this information is a relational database that uses the member ID of a particular member as an index to locate all the rows of information

for that member. (Meyer, 59:33-39.) This collection of profile information about a particular member thus discloses “**a profile of the first visitor**,” as claimed.

132. This profile information was also “**collected during the first computer’s visit to the first website**,” as claimed. With respect to the demographic information, as fully explained for claim 9(a), this profile information was collected as part of the enrollment process that occurred in response to activating an incentive icon on a third party website (“**first website**”). As fully explained for claim 9(a), in one embodiment, this information was collected using pop-up windows (*e.g.* Figs. 21-22) that do not cause the visitor to navigate away from the first website where the incentive icon appeared. As Meyer explains and as noted for claim 9(a), those pop-up windows do “not necessitat[e] the member’s leaving whatever page he or she was viewing on the browser on consumer computer **115**.” (Meyer, 31:4-8; *see also id.*, 8:43-48, 45:22-26, 39:6-12.) The enrollment process described in Meyer detailed above, which resulted in the collection of demographic profile information, was thus “**collected during the first computer’s visit to the first website**,” *i.e.*, during the first user’s visit to the third party website, as the enrollment pop-ups that collected the information did not cause the consumer to leave the first website.

133. I also noted, in connection with claim 9(a), that Meyer discloses an alternative embodiment in which, in response to clicking an incentive icon, incentive

information appears in the same window instead of a pop-up. (Meyer, 8:49-58.) As explained, it would have been obvious to implement the enrollment process in Meyer to collect demographic information using the same window in which the third party website is displayed, thus obviating the need to use a pop-up window. This provides another way in which collection of demographic profile information would have occurred **“during the first computer’s visit to the first website.”**

134. With respect to the collected behavioral information in Meyer, for similar reasons as demographic information, it was also **“collected during the first computer’s visit to the first website,”** as claimed. After the member completes the enrollment process and is signed-on as described above, the member then can view incentives, for example, by activating an incentive icon appearing on the third party website. (Meyer, *e.g.*, 29:53-58, 33:35-39, 33:46-54.) As noted, the “Clip” **2103** and “Buy Now” **2105** buttons in Figure 21 for clipping and redeeming an incentive, respectively, appear in one embodiment in a “pop-up” window that displays information about the incentive. (Meyer, *e.g.*, 30:61-31:8.) User actions relating to an incentive, such as clipping and redeeming, are thus **“collected during the first computer’s visit to the first website,”** because the pop-up windows did not cause the first computer to leave the first website (where the incentive icon appeared) for the reasons expressed above. Alternatively, also for the reasons mentioned above

for demographic information, it would have been obvious to display the incentive, and thus collect any actions relating to the incentive (such as clipping and redeeming), in the same web browser window displaying the first website. And moreover, as noted previously, the recorded profile information can include the mere fact that an incentive icon was viewed by the user on the third party website (Meyer, 29:27-35, 34:48-65), which obviously occurs directly in the same window as the first website. A person of ordinary skill in the art would have therefore understood and found it obvious that a visitor's behavioral information—such as viewing incentive icons, and clipping and redeeming incentives—would have also been collected during the visitor's visit to a third party website in which the visitor enrolled in the incentive system, and would have been recorded in the visitor's profile.

135. Finally, the claimed recording of profile information recited in claim 9(b) occurs “**automatically with the BT computer system**,” as recited in claim 9 immediately after the preamble. The recording of profile information occurs “**with the BT computer system**” because, as noted, because the profile information in Meyer is recorded in member database **111** that is coupled to and managed by the account provider computer (“**BT computer system**”). (Meyer, 18:35-39.) The recording of collected profile information in member database **111** also occurs “**automatically**” by operation of the software in Meyer, as described above.

Nothing in Meyer suggests any user involvement in the actual recordation or maintenance of the demographic or behavioral information in the member database **111** that was collected during the visit to the first website. Although the collection of this profile information might have been the result of user actions (such as enrolling or clipping an incentive), the actual step of “**recording**” that profile information in member database **111** of Meyer was not.

- (c) “electronically transferring to the computer system a price cap that the BT company is willing to pay for allowing delivery of an advertisement within media property advertising space controlled by the third party computer system controlling advertising space on the plurality of third party media properties; and”
(Claim 9(c))

136. At the outset, I note that claim 9(c) recites transferring “to the computer system a price cap that the BT company is willing to pay,” but claim 9(c) does not specify which previously-recited “**computer system**” (*i.e.* the “**BT computer system**” or the “**third party computer system**”) to which this limitation refers. I nevertheless interpret “**the computer system**” in claim 9(c) to refer to the “**third party computer system**,” as the claim contemplates that the recited “**price**

cap” is being transferred from, and not to, the BT computer system.⁵ I note that the claim merely recites the electronic transference of “**a price cap**,” but does not impose any limits on how the claimed price cap is determined.

137. Meyer does not appear to disclose claim 9(c), but this would have been obvious in view of Zeff and Edlund as I will show below. For convenience, I will divide my analysis of claim 9(c) into two parts. First, I will show how the prior art renders obvious the claimed step of electronically transferring a “**price cap**” that the BT company is “**willing to pay for delivery of an advertisement**,” as recited in claim 9(c). Second, I will show how the prior art renders obvious performing this step “**automatically with the BT computer system**,” as recited in claim 9 immediately after the preamble.

Electronically Transferring a “Price Cap”

138. The subject matter of claim 9(c) recites little more than well-known

⁵ This is also consistent with dependent claim 11, which recites a further step of “recording data indicating that the BT company owes the price to the proprietor of **the computer system controlling advertising space on the plurality of media properties**,” which in claim 9 refers to the third party computer system.

techniques carried out by advertising auctions for pricing advertising space on websites on the Internet. As Zeff explains:

Auctions are big on the Internet and are a good place to buy and sell excess ad inventory. Because the auctions are selling excess inventory, advertisers can usually get pretty good prices on well-recognized sites. For publishers it's a way to generate revenue on inventory that would otherwise go unsold.

(Zeff, p.0081.) Well-known sites such as Yahoo!, E! Online, Netscape, among others, were using auctions to sell advertising inventory. (Zeff, p.0082.)

139. Anyone who had used an online auction and bidding site such as eBay would have been readily familiar with the operation of the advertising auction sites described in Zeff. Zeff describes one company known as Adauction.com that provided an auction service enabling websites “to sell excess inventory; they sell ad campaigns that begin the month after the auction (if the auction is in January, the flight is in February).” (Zeff, p.0082; *see also id.*, p.00152 (“**Flight.** An advertising campaign on a specific Web site for a specific time period....”).) Figure 7.12 shows an Adauction “bidding floor” window showing an active auction for advertising space on the “Internet Travel Network” site:

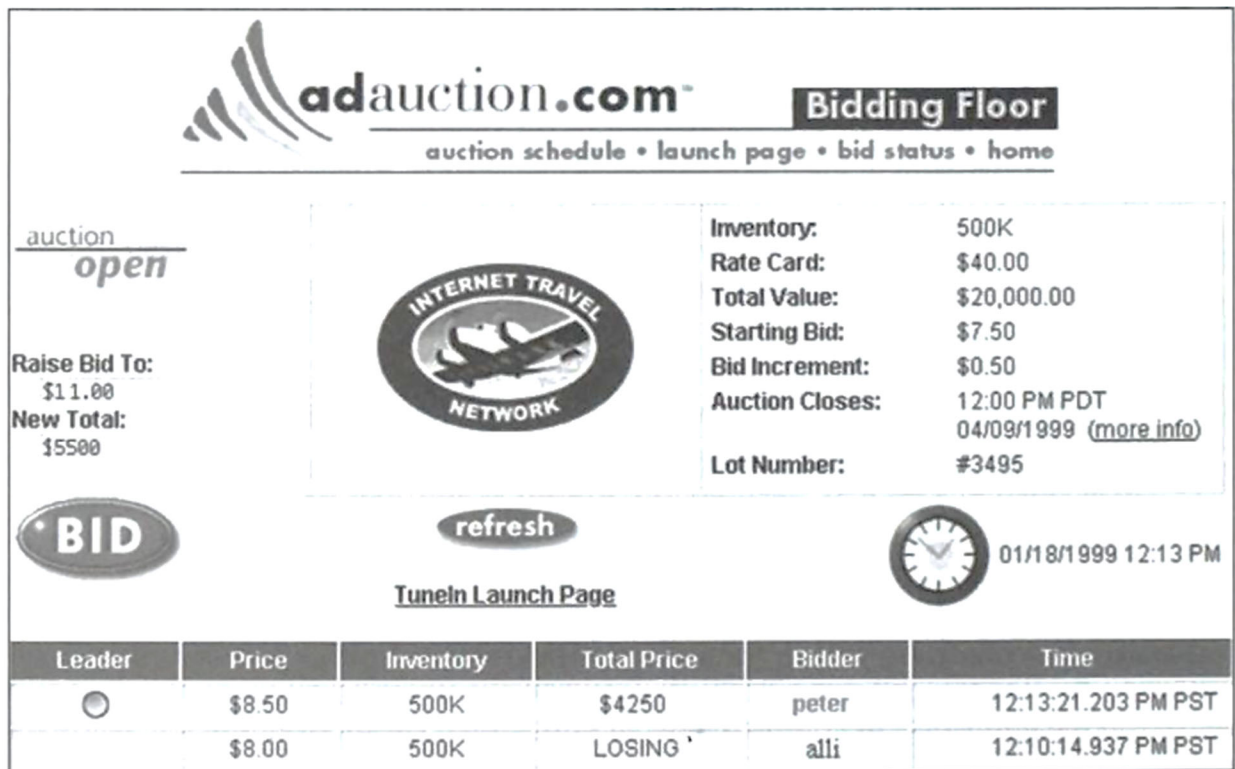


Figure 7.12 The Aداuction.com bidding floor.

(Zeff, p.0083, Fig. 7.12.) The exemplary Aداuction.com screen above shows an auction for an inventory of 500,000 (“500K”) advertising impressions or displays, with a currently winning bid from “peter” of \$8.50. (*Id.*) Figure 7.12 also includes a “**Bid**” button (on the left) to enable the user to submit a higher bid. (*Id.*)

140. The bid prices in Figure 7.12 are based on “CPM,” a well-known pricing model that specifies the cost to display an advertisement 1,000 times. (Zeff, p.00102 (“CPM, or cost per thousand. Means that the advertiser will pay a set fee for every thousand times an ad banner is delivered.”).) Advertiser “peter” is thus

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willing to pay \$8.50 to present its advertisements 1,000 times. The total price for his winning bid is thus shown as “\$4250” based on multiplying the \$8.50 CPM by 500 (for the 500,000 impressions in the auctioned inventory). CPM is a well-known pricing model and specifically referenced in the ’615 patent as an example of representing how much an advertiser would be willing to pay for display of its advertisements. (’615, *e.g.*, 6:1-6 (“... the advertiser is willing to pay \$25 for every thousand ads (CPM) presented to people who visited that mutual fund section.”).)

141. Zeff also discusses Flycast, an ad network that also sold advertising through an auction. “Flycast (www.flycast.com), an ad network with more than 700 sites that reaches more than 12 million people each month, also sells ads in real time.” (Zeff, p.0083.) Similar to Adauction.com, advertisers can “buy inventory in Flycast’s real-time bidding for space. In the real time bidding, the site sets the minimum bid on the inventory, and the price increases if an advertiser needs to bid higher than someone else to secure the space.” (Zeff, p.0084.) Zeff thus confirms that auctions are not only used by individual websites to sell advertising – auctions were also used by ad networks to sell advertising space for their websites in real time. (Zeff, pp.0083-0084, 0033.)

142. Zeff thus discloses “**electronically transferring to** [the auction system] **a price cap that** [an advertiser] **is willing to pay for allowing delivery of**

an advertisement.” The “**price cap**” in Zeff is provided through the bid submitted by an advertiser, which is “**electronically transferr[ed]**” when the advertiser transmits its bid to the auction system over the Internet (for example, to the auction website). Using the example in Figure 7.12 of Zeff, the \$8.50 bid based on CPM indicates that advertiser “peter” electronically transmitted a bid indicating his willingness to pay up to \$0.0085 (slightly less than one penny) for each instance in which its advertisement is delivered. This qualifies as a “**price cap**” because it represents the highest amount that advertiser “peter” indicated that he was willing to pay for advertisement placement. That this amount represents a “**price cap**” is further confirmed by the fact that “peter” will lose the auction if he gets outbid by another purchaser willing to pay more than \$8.50.

143. Of course, in certain auction-based systems, it may be possible for a purchaser to transmit a second, higher bid to an auction, for example if the purchaser was outbid. The bid amount transmitted by an advertising purchaser in Zeff nevertheless still qualifies as a “**price cap**” because it represents the maximum bid the purchaser indicated that it was willing to pay, *at the time of the bid*, for the auctioned advertising placements. I do not see anything in claim 9(c) or the ’615 patent specification indicating that the claimed “**price cap**” must always be a fixed amount and cannot be adjusted upward if needed, or that the transmission of a “price

cap” in claim 9(c) cannot occur multiple times in response to changes of the price cap. And as noted in **Fisher** (Ex. 1006), which I will discuss below, it also would have been obvious that the bid submitted could have been a single bid representing the maximum amount the purchaser would have been willing to pay. (Fisher, Ex. 1006, 12:65-13:2 (“When Proxy Bidding is employed, a bidder places a bid for the maximum amount they are willing to pay.”).)

144. I note that a CPM-based bid as disclosed in Zeff specifies the amount an advertiser is willing to pay for a *package* of advertisement displays and not just a single display of an advertisement. But a CPM-based bid nevertheless qualifies as a price cap specifying what an advertiser “**is willing to pay for allowing delivery of an advertisement,**” because it provides a price-per-display amount that is merely aggregated based on multiples of 1000. The bid from “peter” for \$8.50 above, for example, indicates that “peter” is willing to pay \$0.0085 each time an advertisement is delivered. As noted, the use of CPM to specify the claimed “**price cap**” is consistent with the description in the ’615 patent. (’615, e.g., 6:1-6 (“... the advertiser is willing to pay \$25 for every thousand ads (CPM) presented to people who visited that mutual fund section.”).)

145. ***Rationale and Motivation to Combine (Meyer and Zeff)***: I already provided a rationale and motivation to combine Meyer and Zeff in connection with

claim 9(a). But as to claim 9(c), the combination of Meyer and Zeff would have predictably resulted in the incentive system of Meyer in which the account provider (“**BT company**”), who desires to have its advertisement placed on third party websites, electronically transmits a bid to the service provider computer (“**third party computer system**”) reflecting a price cap that the account provider is willing to pay for delivery of its advertisement to the third-party websites whose advertising space is controlled by the service provider computer (“**within media property advertising space controlled by the third party computer system controlling advertising space on the plurality of third party media properties**”). As I will explain in the next section in my discussion of Edlund, it would also have been obvious to transmit this price cap “**automatically**” from the account provider to the service provider computer.

146. The combination could have been implemented in a number of straightforward ways. As explained for claim 9(a), Meyer makes clear that the account provider (“**BT company**”), such as a credit card company, could have been an advertiser who sponsors its own incentives. (Meyer, *e.g.*, Fig. 22 & 33:10-14, 30:23-32.) Meyer also makes clear that there may be multiple different parties issuing incentives, as well as multiple incentives that might be displayed on a given web page, for example. (Meyer, 16:1-5 (“An incentive issuer typically is the

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merchant or manufacturer of the goods or services, for example, SONY®, or CIRCUIT CITY®, or MARRIOTT HOTELS®, etc., that desires to promote its products or services by offering incentives.”), 24:38-41 (“Similarly, different incentives may appear for different consumers at the same Web site or for the same consumer at different Web sites.”).) The service provider (“**third party computer system**”), whose position is analogous to an ad network as explained in claim 9(a), could have implemented the proposed combination by offering an auction-like sales system such as the ones described in Zeff, which would have allowed the account provider (among others) to submit bids for advertising space on third party websites – a popular way to sell advertising on the Internet as Zeff confirms. As noted, the Flycast service identified in Zeff, “an ad network with more than 700 sites that reaches more than 12 million people each month,” sold advertising in real-time using an auction. (Zeff, pp.0083-0084.) As explained previously, Meyer and Zeff are analogous references. As to claim 9(c), the analogousness is further enhanced by Zeff’s teachings regarding Internet advertising auctions, which would have been reasonably pertinent to a number of problems facing the ’615 inventor including use of existing Internet advertising pricing models (such as CPM) and how to maximize the revenue and profit obtained from advertisers.

147. An ordinarily skilled artisan would have been amply motivated to

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combine. The motivation to combine with Meyer could not have been more straightforward – *making money* for the service provider who sells advertising on third party websites, and *saving money* for the account provider who purchases it. As explained for claim 9(a), an ordinarily skilled artisan would have been motivated to implement the system of Meyer such that the service provider is a separate company from the account provider, in part, to enable the service provider to offer a valuable and potentially profitable advertisement placement service analogous to a conventional ad network. But a logical question would have followed from such an arrangement – how much should the service provider charge? An on-line auction would have provided a natural answer to this question because auctions, and their benefits, were well-known. Most notably, auctions often determine the most appropriate price for an item because auctions are based on competitive bidding by a number of prospective purchasers. Auctions, in other words, determine most appropriate price because they create a true “marketplace” in which the price of a package of Internet advertisements would have been established based on direct feedback from potential purchasers who are indicating (through their bids) their beliefs as to the value of the auctioned advertising. This would have reduced the burden on the service provider of having to determine pricing through market research, surveys, experimentation, or other ways, which ultimately could have

resulted in pricing that was either too low or too high when compared to the actual demand and expectations of advertisers.

148. Zeff provides several additional express motivations to combine:

Auctions are big on the Internet and are a good place to buy and sell excess ad inventory. Because the auctions are selling excess inventory, advertisers can usually get pretty good prices on well-recognized sites. For publishers it's a way to generate revenue on inventory that would otherwise go unsold.

(Zeff, p.0081.) An ordinarily skilled artisan would have immediately understood why auctions are, to use Zeff's words, "a good place to buy and sell excess ad inventory." (*Id.*) For the advertiser who wishes to purchase advertising, whose position is analogous to the account provider ("**BT company**") in Meyer, an auction and bidding system could have resulted in a substantially lower price for advertising. As anyone who had used an online auction such as eBay would have appreciated, the final price in an auction is typically determined based on the highest bid, but that amount may end up being considerably lower than the price the seller would normally have charged outside the auction context. Figure 7.12, for example, shows a current winning bid of \$8.50 for a package of 500,000 advertising impressions for the "Internet Travel Network," but the normal price charged by that website was \$40 (based on its rate card). (Zeff, p.0083, Fig. 7.12 ("**Rate Card: \$40**"); *see also id.*,

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p.00120 (rate card refers to asking price for advertising).) An ordinarily skilled artisan would thus have been motivated to adapt Meyer to use an auction-like system to price advertising as the competitive bidding model would often have resulted in a price more consistent with current demand and market conditions. Zeff also confirms, as noted above, that advertisers benefit when auctions are used to sell excess advertising inventory because that inventory is often sold at reduced prices. (Zeff, p.0081.)

149. This motivation to combine also extends to the service provider computer in Meyer (“**third party computer system**”), whose position is analogous to an ad network or broker as explained for claim 9(a). As noted, an auction provides a convenient way for a seller of advertising to obtain revenue from excess advertising inventory that might otherwise have gone unsold. (Zeff, p.0081.) This, in turn, would have resulted in increased revenue and profit for the service provider. And as noted above, use of an auction provides a clear convenience to the service provider by relieving it of the burden of having to figure out (through market research, surveys, etc.) how much it should charge for advertising.

150. An ordinarily skilled artisan would have had more than a reasonable expectation of success. Although popular Internet auction systems such as eBay and Aداuction.com may have offered advanced functionalities, a working auction and

bidding system sufficient to implement the claimed “**price cap**” of claim 9(c) could have been readily implemented using conventional programming techniques. The underlying programming and logic for soliciting and collecting bids, selecting the highest bid, and delivering the advertising to the winning bidder, would not have been complex. The proposed combination of Meyer and Zeff could have been implemented using conventional programming techniques, and these references provide more than sufficient explanation and detail to implement the disclosures upon which I rely, without undue experimentation.

“Automatically” Transferring a Price Cap

151. As noted previously, the language immediately following the preamble requires that each of the steps of claim 9 occurs “**automatically with the BT computer system.**” The step of electronically transferring a price cap to service provider computer in Meyer (“**third party computer system**”), under the proposed combination, would have been performed with the account provider computer (“**with the BT computer system**”) because, under the proposed combination, it is the account provider (“**BT company**”) that is seeking to have its advertisements placed, and thus, would have electronically transmitted its bid. But Zeff does not appear to disclose that bids are electronically transmitted to an auction service “**automatically,**” but this further detail would have been obvious based on Meyer

and Zeff, in further view of **Edlund** (Ex. 1005).

152. Edlund discloses techniques for automating and managing bids within the context of Internet auctions. (Edlund, Abstract.) Edlund explains that “the popularity of web-based auction sites is growing rapidly,” such that “more and more purchasers are becoming involved and taking advantage of this auction based buying on the World Wide Web (WWW).” (Edlund, 1:35-38.) But Edlund laments that “[p]urchasers have to do the entire bidding process manually,” which requires that they “carefully monitor their active auctions and must quickly react when other persons place higher bids on a desired item.” (Edlund, 2:27-30.)

153. Edlund purports to address these problems “by allowing purchasers to manage their auction sites automatically.” (Edlund, 2:35-37.) In one embodiment, purchasers can manage a number of different Internet auction sites and specify a configuration profile for each site specifying, among other things, how to access the auction site, how to retrieve auctions, and how to place or cancel bids. (Edlund, 2:37-53.) The purchaser can also specify desired items and a price range it is willing to pay for those items. (Edlund, 2:54-61.) “The present invention will then automatically contact the desired auctions sites and perform a query (poll) in specific time intervals to determine whether the selected item is currently available for purchase. With this information one preferred embodiment will then automatically

select the auction with the lowest current bid and place a bid there.” (Edlund, 2:61-67.) Edlund explains, in one exemplary example of purchasing a “greatest hits” music compact disc (CD) from an auction site:

Then the purchaser will enter his/her purchasing request along with the maximum amount of money he/she is willing to pay for the requested item. In this example, the greatest hits CD would constitute the purchasing request. The present invention now queries the auction site to determine if the desired CD is currently available for bidding. In case that the CD is available and the current bidding price is below the defined maximum, it will automatically place a bid. Then it will monitor the bid and place additional bids if necessary. For instance it could happen that someone placed a higher bid, and the auction terminated. The present invention then searches for another ongoing auction that would be appropriate to meet the user purchase requirements. Additionally, it could place more bids on different auctions if it seems to be necessary to enhance the probability of buying the desired item.

(Edlund, 4:58-5:6; *see also id.*, 8:62-9:18.) Edlund also makes clear that despite the above example involving purchasing a physical item, its automatic bidding techniques are broadly applicable to any commercial context involving bidding. Edlund explains that “the entire broad context of sales and purchase order bidding within normal commerce is within the anticipated scope of the present invention”

(Edlund, 4:7-9), and that the invention can also be applied to “automated purchases of stock over the Internet,” among others. (Edlund, 10:41-51.) Edlund thus discloses the ability to “**automatically**” contact an auction site and submit one or more bids for an auction.

154. *Rationale and Motivation to Combine (Meyer and Zeff with Edlund):*

It would have been obvious to combine the teachings of Meyer and Zeff with Edlund, which would have predictably resulted in the incentive system built based on Meyer and Zeff, described above, with the additional ability to automatically transmit a bid for Internet advertising. Under the proposed combination of Meyer and Zeff, as noted, the account provider computer in Meyer (“**BT computer system**”) would have electronically transferred to the service provider computer (“**third party computer system**”) a bid indicating what it is willing to pay for placing advertising on the third-party websites whose advertising space is controlled by the service provider computer. Under the further combination with Edlund, the electronic transfer of the bid from the account provider computer to service provider computer would have occurred “**automatically**,” as recited in claim 9.

155. The proposed combination could have been implemented in a number of straightforward ways. For example, the techniques in Edlund would have allowed the account holder to automatically search for Internet advertising packages across

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a number of auction sites. (Edlund, *e.g.*, 5:1-10, 6:46-49, 9:5-13.) For example, an account provider seeking to purchase Internet advertising with the “Internet Travel Network” (using the example in Zeff) could have configured the account provider computer to automatically search Internet advertising auction sites – including the one managed by the service provider – to look for and place bids on packages of advertisements for that website. As noted for claim 9(a), the service provider under the proposed combination is analogous to a conventional “ad network, and as noted, there were dozens of ad networks in existence. (Zeff, p.00130, Table 10.2; *see also id.*, pp.00141-00149.) It thus would have been obvious to implement the proposed combination, using the automatic auction management techniques of Edlund, to have the account provider computer automatically communicate with and submit bids to multiple auctions, including the one managed by the service provider in Meyer. I note that this is just one example of the many ways of adapting the automatic bid management techniques of Edlund. In any case, the proposed combination would have predictably resulted in the “**price cap**” being “**automatically**” transmitted to at least the service provider computer, based on the teachings of Edlund.

156. Meyer and Zeff are analogous references for the reasons expressed above. Edlund is also an analogous reference in the field of Internet-based commerce. As explained previously, it was well-known to use competitive auctions

and bidding to establish pricing for Internet advertising sales. (Zeff, pp.0081-0082.)

The teachings of Edlund would have enhanced those auctions by allowing submission of bids to be automated, as discussed below. An ordinarily skilled artisan implementing the proposed combination using an online auction would have found Edlund's teachings pertinent in enhancing and improving that system. Edlund thus would have been reasonably pertinent to a problem facing the '615 inventor of how to automate aspects of an Internet advertising system and thereby maximize revenue and profit derived from advertising sales.

157. Edlund itself provides several express motivations to combine; as noted above, it explains that without its automation techniques, "[p]urchasers have to do the entire bidding process manually," requiring that they "carefully monitor their active auctions and must quickly react when other persons place higher bids on a desired item." (Edlund, 2:27-30.) As anyone who had used a popular online auction site such as eBay would have recognized, having to manually monitor auctions and submit bids often resulted in the purchaser needlessly losing an auction, for example, by not being physically present at the computer upon receipt of higher bids, or by simply not being able to react as quickly as another competing bidder. The techniques of Edlund would have alleviated these known problems by automatically submitting bids consistent with the purchaser's desired maximum bid. (Edlund, 3:5-

11; *see also id.*, 3:12-14 (“The present invention anticipates continuously monitoring the selected auctions and uses algorithms... to ensure that these goals are fulfilled.”).) The techniques in Edlund would thus have provided a distinct advantage to the system built based on the combination of Meyer and Zeff by allowing the account provider (“**BT company**”) to automate transmission of bids to the service provider (“**third party computer system**”). This would not only have provided a convenience to the account provider by automating an otherwise manual process, but it would have reduced the risk of being outbid by another bidder.

158. Edlund provides a further motivation to combine by explaining that its techniques allow a purchaser to automatically monitor and place bids across *multiple* auction sites when an item has been listed on different auctions. (Edlund, *e.g.*, 5:1-10, 6:46-49, 9:5-13.) This would have further benefitted the system of Meyer under the proposed combination by “enhanc[ing] the probability of buying the desired item.” (Edlund, 5:3-6.) This is because the techniques of Edlund would have expanded the potential universe of auction sites for Internet advertising beyond a single site. As noted, the service provider in Meyer is analogous to an “ad network,” of which there were dozens in existence. (Zeff, p.00130, Table 10.2; *see also id.*, pp.00141-00149.) As such, a particular package of Internet advertisements (such as the exemplary package of 500K advertising views on the “Internet Travel Network”

in Zeff) could have been listed on multiple auction sites and sold to multiple purchasers. The techniques of Edlund, by increasing the number of sites where the desired advertising package could have been purchased – and automatically locating those sites and submitting bids – would have increased the probability that the account provider would have succeeded in purchasing the desired advertising package. As explained below in the discussion of Dutch auctions, it would have been obvious that a particular package of Internet ads could have been sold to multiple purchasers.

159. An ordinarily skilled artisan would have had more than a reasonable expectation of success. The ability to automate transmission of bids to an electronic auction could have been implemented using conventional programming techniques. Edlund provides detailed disclosures of how to adapt its automated auction management system to interface with auction sites, including how to retrieve auctions and place bids. (Edlund, *e.g.*, 5:40-6:7, 8:25-41.) The transmission of a bid from the account provider to the service provider computer could have been accomplished using conventional Internet communication protocols such as TCP/IP. Meyer itself confirms that the account provider computer can actually comprise several computers distributed over a network (Meyer, 18:46-54, 19:6-15), so the proposed combination could have been implemented in any number of ways

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including using a separate computer under control of the account provider to electronically and automatically transmit the bid to the service provider. The proposed combination of Meyer, Zeff, and Edlund could thus have been implemented using conventional programming techniques, and the disclosures in these references provide more than sufficient detail to have enabled an ordinarily skilled artisan to implement the features on which I rely.

160. Edlund does not specifically mention auctions used to sell Internet advertising, but an ordinarily skilled artisan would have found Edlund's disclosures broadly applicable to any Internet-based auction, including the ones discussed in Zeff, regardless of superficial differences in the commercial contexts or products/services offered for sale through the auctions. In fact, Edlund makes clear that its techniques have broad applicability by explaining that "the entire broad context of sales and purchase order bidding within normal commerce is within the anticipated scope of the present invention" (Edlund, 4:7-9), and that the invention can be applied to a variety of uses such as "automated purchases of stock over the Internet," among others. (Edlund, 10:41-51.) An ordinarily skilled artisan would have viewed the use of auctions to sell Internet advertising as an outgrowth of the massive popularity of Internet auction sites beginning in the mid- to late-1990s (such as eBay which launched in 1995), and as such, would have regarded the techniques

in Edlund as fully applicable to Internet auctions for advertising.

- (d) **“at a second time, later than the first time, upon receiving a redirection of the first computer while the first computer is visiting one of the plurality of third party media properties, causing a selected advertisement to be served to the first computer, which advertisement is based on the profile information collected during the first computer’s visit to the first website, which profile information is in the profile of the first visitor maintained by the BT computer system, in exchange for a price less than the price cap.” (Claim 9(d))**

161. Meyer discloses and renders obvious all aspects of claim 9(d) except the last clause relating to payment (**“in exchange for a price less than the price cap”**), which I will address separately below.

162. As fully explained for claim 9(a), **“at the first time,”** a consumer creates an account with the account provider computer (**“BT computer system”**), and receives a member ID that is stored in a cookie on the consumer computer. The consumer can subsequently (**“at a second time, later than the first time”**) view third party websites and receive targeted incentives based on its member ID, as described below. I will first address how Meyer discloses **“causing a selected advertisement to be served to the first computer,”** and then address how this happens **“upon receiving a redirection,”** as recited in claim 9(d). I will then conclude by addressing the **“in exchange for a price less than the price cap”**

requirement.

163. Meyer discloses several examples of **“causing a selected advertisement to be served to the first computer”** based on the visitor profile information described for claim 9(b).

164. First, as noted for claim 9(b), the **“profile information”** can include member and demographic information collected during the enrollment process. The system of Meyer, in turn, can use this information to select an advertisement. For example, the claimed **“selected advertisement”** in Meyer can take the form of an incentive icon that is selected for display while the consumer computer is visiting a third party website (**“while the first computer is visiting one of the plurality of third party media properties”**). The incentive icon in Meyer is “[t]he audiovisual that appears on the consumer computer to identify existence of the incentive.” (Meyer, 25:9-10.) Meyer refers to the incentive icon as an “incentive existence message” (Meyer, 7:27-30), and it “includes an audiovisual, for example an icon, and the audiovisual characteristics of the incentive existence message (including for example the icon shape, color, text associated with the message, and the wording) are dependent on one or more characteristics of the consumer.” (Meyer, 8:6-11.) As Meyer explains:

Consumers find displays of the incentive icons (or icons that generate

incentive icons) in a variety of places on the Internet: manufacturer Web sites where products are described: retailer Web sites where products are sold; affinity Web sites for special interests such as entertainment, sports or travel: ad banners on Web pages and e-mail. When a consumer computer turns to a Web page that contains an icon, process ICON_DSPLY is started, preferably by running JavaScript that is embedded on the page, or alternatively by an applet loaded from the service provider process, or by a JAVA servlet run as part of the service provider process.

(Meyer, 27:66-28:9.) Meyer further notes that an incentive icon can include the incentive itself. (Meyer, 29:55.)

165. With respect to how an incentive existence message (or icon) is selected, the selection in Meyer can be based on the “**profile information**” describing characteristics of the consumer, such as demographic information recorded in the member database. (Meyer, 23:58-64 (“One of the aspects of the invention is the dynamic nature of the incentives. Not all incentives or even incentive icons will displayed to everyone. Also, a different version of the same base incentive, including using a different incentive icon or a different incentive artwork or both (see below), may be used according to the characteristics of the consumer.”), 24:24-32.) For example, if an incentive has a dynamically-determined existence message or icon, the member ID is obtained from the consumer computer and used to retrieve

member information from the account provider computer. (Meyer, 29:5-21.) “Such member information may include, for example, details of membership in some external membership organization, as well as other demographic information.” (Meyer, 29:19-21.) This information is then used by a procedure called “Get_Incentive_For_Member” shown in Figure 16:

```
// Get_Incentive_For_Member is called from View_Icon;  
BEGIN  
    Execute the dynamic incentive selection algorithm to set incentive to a  
        specific incentive based on member info;  
END;
```

Fig. 16

1601

(Meyer, Fig. 16.) Figure 16 shows a “dynamic incentive selection algorithm [that] set[s] the incentive icon... based on member information. The icon is then displayed.” (Meyer, 29:22-27.) “For example, a Web page may retrieve and display an incentive icon for men’s clothing when the member is a male and for women’s clothing when the member is a female.” (Meyer, 38:11-13; *see also id.*, 10:4-10.)

166. Meyer thus discloses causing “**a selected advertisement** [*i.e.* a selected incentive existence message or icon] **to be served to the first computer** [*i.e.* to be sent to and displayed on the consumer computer], **which advertisement is based**

on the profile information collected during the first computer's visit to the first website [*i.e.* based on the member and demographic information collected during the enrollment process as fully described for claim 9(a)], **which profile information is in the profile of the first visitor maintained by the BT computer system** [*i.e.* in member database **111** maintained in a member profile by the account provider computer as fully described for claim 9(b)].” This process also occurs “**automatically**” because the user does not have to take any specific action on the first website to cause the incentive existence message/icon to appear.

167. But the incentive selection system of Meyer is not limited to use of demographic information – it can also select and display incentives by using “**profile information**” in the form of collected behavioral information. For example, as fully explained for claim 9(b), one of the options available to members is “clipping” incentives by storing selected incentives with the member's account in member database **111**, which is maintained by the account provider computer. (Meyer, 21:29-32, 36:65-67.) Meyer specifically discloses the ability to target incentives to a user based on the user's previously-clipped incentives:

From time to time, the service provider can transmit targeted information to members about the incentives they have clipped, for example by sending e-mail or making a telephone call, or sending

postal mail to the members. This information also may be displayed to a member whenever the member accesses certain Web pages, for example related to the member's account on the incentive system. The information may also be displayed to the user whenever the member requests viewing an incentive or whenever the member clips an incentive or whenever a member clicks a general icon. The targeted information on a clipped incentive typically includes that the incentive may expire soon that there are new related incentives (e.g., other incentives in the same category), etc. The targeted information may also be that the value of the incentive has changed, for example as a result of approaching the Expiration Date.

(Meyer, 37:56-38:4.) As shown, Meyer discloses several different ways in which information about clipped incentives can be presented, including on Web pages or when an incentive is displayed. And aside from the particular incentive clipping example described above, Meyer more generally discloses the ability to present incentives to consumers based on “consumer factors” such as “past purchasing behavior” that has been recorded. (Meyer, 6:34-43; *see also id.*, 26:24-31 (“In addition, an aspect of the invention is collecting data about the purchase and pre-purchase behavior of consumers through the normal operation of the incentive system. In the preferred embodiment, all interactions with the incentive, such as the incentive views, clips, and redeems of a consumer for an incentive are recorded

during operation.”).)

168. Using collected behavioral information, therefore, Meyer discloses causing “**a selected advertisement to be served to the first computer,**” with the “**selected advertisement**” in this instance corresponding to either a previously-clipped incentive (for example, one that might expire soon), “new related incentives” in “the same category” (Meyer, 37:56-38:4), or incentives presented based on past purchasing behavior, as noted above. The selected advertisement was “**based on the profile information collected during the first computer’s visit to the first website,**” *i.e.*, behavioral profile information as noted above. This profile information is also “**in the profile of the first visitor maintained by the BT computer system,**” as noted, because it is stored in the member account of member database **111**, which is maintained by the account provider computer as fully explained for claim 9(b).

169. Meyer also makes clear that the targeting of an incentive based on behavioral information can occur “**automatically.**” As noted above, one of the ways in which targeted incentive information can be displayed is in response to a request to view an incentive. (Meyer, 37:62-66.) In one embodiment, the display of an incentive occurs as a result of the user manually clicking an incentive icon. (Meyer, *e.g.*, 29:53.) But Meyer discloses an alternative embodiment in which the incentive

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information can be automatically displayed when the incentive icon is displayed. (Meyer, *e.g.*, 29:54-58 (“When an incentive is displayed, either after a user clicks on an icon or when the incentive is included in the icon itself or as a direct online display, the characteristics of the incentive and the environment when the incentive is displayed is called an incentive instance.”), 10:54-56 (“The selecting mechanism [for displaying an incentive] may include manual activation means and thus be activated in response to consumer interaction, or may be activated automatically.”), 11:7-13 (“In this embodiment, the system then includes means for displaying one or more parameters of a particular published incentive on the display device when the consumer computer accesses one of the locations containing the selecting mechanism of the particular incentive. This may occur automatically or as a result of the consumer interacting with some interaction means included in the selecting mechanism.”), 12:24-34.) As a result, when the consumer computer (“**first computer**”) accesses a third party website in Meyer, the incentive existence message/icon, and corresponding information displayed about the incentive, could have been “**automatically**” served and displayed to the consumer computer in response to accessing to the website.

170. In each of the scenarios described above, service of the selected advertisement to the first computer occurs “**upon receiving a redirection of the**

first computer while the first computer is visiting one of the plurality of third party media properties,” as claimed. This is because the display of the incentive and the incentive icon on the third party website (**“one of the plurality of third party media properties”**) occurs as a result of a URL on the third party website that causes the web browser to redirect to the service provider computer. For example, in the embodiment where the icon is provided via a JAVA server program (servlet):

In the case of a servlet, the display of the incentive icon is implemented in the preferred embodiment by including a URL on the page on the Web where the icon is to be displayed, the URL pointing to the service provider Web site and used to retrieve the image displayed by the incentive icon. The URL points to a general purpose JAVA servlet, specifies that it wants the incentive’s icon, and includes an argument with an identifier for the appropriate incentive. For example:

```
http://iq.com/servlet/CouponServlet/icon?incentiveId=  
IQDemo^sonycam-100
```

which is for the simple case of a known value discount incentive. The JAVA servlet is run as part of the SRVPRVD process on the incentive information computer.

(Meyer, 28:11-26; *see also id.*, 38:6-10 (“That is, HTML is embedded in various locations that includes the URL of a servlet that selects one or more incentives and displays the incentive icons according to one or more characteristics of the consumer”).) An ordinarily skilled artisan would have recognized the process

described above as standard behavior of web browsers when they encounter URLs embedded in the HTML of websites. In the example in Meyer, when the consumer computer visits the third party website, the web browser responds to the URL in the HTML of the webpage by contacting the service provider computer (at “iq.com”) to retrieve the incentive icon. And as noted, display of the incentive icon can also automatically cause information about the incentive itself to be displayed. (Meyer, 29:54-58, 10:54-56, 11:7-13, 12:24-34.)

171. This process qualifies as “**receiving a redirection of the first computer,**” as claimed because the URL causes the consumer computer (“**first computer**”) to “redirect,” *i.e.* read information from a location different from the third party website (“**first website**”), in this case from the service provider computer at the “iq.com” domain. I note that the URL redirection described in Meyer is consistent with the ordinary meaning of “**redirection**” in the context of the Web as of June 2006, and also consistent with how that term is used in the ’615 patent. (’615, 2:61-64 (“For a site to have its ad served by an ASP-hosted ad server, such as the one operated by DoubleClick, the site needs to redirect visitors from the site to the DoubleClick ad server, to fetch the ad from the server.”), 8:14-15 (“The recognizing [of the user] might be as simple as pulling a keyword for which the visitor **10** searched from a URL used by the profile supplier **20** to **15** redirect the

visitor **10** to the BT company **30**, for example.”); *see also Microsoft Computer Dictionary* (5th ed. 2002) [Ex. 1012], p.005 (“**redirection** *n.* The process of writing to or reading from a file or device different from the one that would normally be the target or the source.”).) As noted previously, the incentive icon and incentive in Meyer is automatically displayed as a result of this process.

“automatically with the BT computer system”

172. Meyer also discloses and renders obvious performance of the steps in claim 9(d) “**automatically with the BT computer system**,” as recited in claim 9 immediately after the preamble. I previously explained above how the process occurs “**automatically**.” It also occurs “**with the BT computer system**” because the account provider computer (“**the BT computer system**”) works with the service provider computer to cause incentives to be displayed. The account provider computer, in fact, performs the critical step of providing member information (from its member database) based on the member ID, which is used in selecting and displaying the incentive to the user. (Meyer, *e.g.*, 29:16-21, 32:37-46.)

173. As shown above, Meyer also relies on the service provider computer (“**third party computer system**”) to perform certain aspects of the incentive display process detailed above, including responding to the redirection URL that causes display of the incentive icon. But in my opinion, this does not present an obstacle

to Meyer rendering obvious claim 9(d) because the claim merely requires that the step occur “**automatically with the BT computer system,**” and not “**automatically by the BT computer system.**” The process is performed “**with**” the account provider computer (“**BT computer system**”) because, as explained, it provides an essential part of the process of selecting and delivering incentives by, among other things, providing member information on which the selection is based.

174. I note that Meyer is not entirely clear as to precisely which computer is responsible for performing the acts that I have identified as corresponding to “**causing a selected advertisement to be served to the first computer,**” but even if the claim were construed to require it be performed by (and not just with) the “**BT computer system,**” such a requirement would have nevertheless been obvious.

175. It would have been obvious to implement Meyer such that the account provider computer (rather the service provider computer) performs the actual selection of an advertisement for the first computer upon receipt of the redirection, thus causing a selected advertisement to be served. As noted previously for claim 9(a), it is the account provider computer (“**BT computer system**”) in Meyer that stores member demographic information collected during the enrollment process (Meyer, 33:30-33), and nothing in Meyer suggests that this information is also stored in the service provider computer. And this information, as noted, is used to

selectively target incentives and incentive icons to members based on their characteristics. It thus would have been obvious to rely on the account provider computer to select and cause an incentive to be served to the first computer, because it has direct access to the information needed to make that selection. An ordinarily skilled artisan would have been motivated to implement Meyer this way for at least two reasons.

176. First, it would likely have been more efficient to have the account provider computer perform this process. As noted, in order to display a dynamic incentive icon when a consumer computer is viewing a third party website, the system in Meyer already relies on the account provider computer to retrieve member information based on the member ID. (Meyer, 29:5-21.) It would have been obvious to have the account provider computer then locally use the retrieved member information to dynamically select the incentive icon that will be served to the consumer computer. This would have provided an increase in efficiency by avoiding needlessly transferring the retrieved member information to another computer over a network so that other computer could implement the same selection process that the account provider itself could have performed.

177. Second and perhaps more compellingly, an ordinarily skilled artisan would likely have felt required to implement Meyer in this way in embodiments in

which the service provider and the account provider are separate companies. As explained fully for claim 9(a), transferring the member's personal demographic information to the service provider computer (without member consent) would likely have jeopardized member privacy and would have served no discernable purpose. As also mentioned for claim 9(b), the account provider computer also maintains full records of the behavioral profile information including incentives previously clipped by members. (Meyer, 36:65-67.) It thus would have been obvious to rely on the account provider, which has full access to both the demographic and behavioral profile information, to be the computer that selects and causes service of an incentive to the consumer computer. This would have beneficially enabled the incentive system in Meyer to dynamically target incentives without having to transfer potentially sensitive member information over a network to a computer controlled by another company, where it could be intercepted or potentially misused.

178. This type of implementation would have provided a clear benefit by avoiding issues of member privacy that were well-known to persons of ordinary skill in the art. The early 2000s saw an increase in public awareness of and concern about use of information online services collected about their members. This is confirmed by Peter Fletcher et al., *Practical Web Traffic Analysis: Standard, Privacy, Techniques, Results* (2002) (“**Fletcher**”) [Ex. 1011], which I have cited to confirm

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the motivation to implement Meyer in the manner described above. Fletcher provides an entire chapter on website privacy and explains that “privacy is becoming a very important part of building and managing a modern web site.” (Fletcher, p.0026.) Fletcher describes existing concerns with data privacy, including whether websites share their members’ personal information without their consent. (Fletcher, pp.0028-0029.) To assuage these concerns, it was common for websites to promise users that the websites will not share personal information with third parties without consent, such as the following statement from the New York Times (NYTimes.com) registration webpage:

2. TELL US ABOUT YOURSELF

We'll keep your information private. The following fields are required. NYTimes.com respects your privacy, so we will never share any personal information without your consent.

Gender: ☐ Male ☐ Female	Year of Birth: 19 (Click here if you are under 13)
Zip Code: 	Country of Residence: United States
Household Income Range: --Select One--	Industry in which you work: --Select One--
Job Title: --Select One--	Job Function: --Select One--
Please select your usage of <i>The New York Times</i> newspaper: --Select One--	

Personal information required on the registration page, with an easy to find link to the NYTimes.com privacy statement

(Fletcher, p.0045 (red underlining added); *see also id.*, p.0046 (noting that NYTimes.com was the top ranked website among its competition as of August

2002).) As shown, the registration page for NYTimes.com clearly informed the user “we will never share any personal information without your consent,” and provides a link to the applicable privacy policy. (*Id.*, p.0045.) I note that the reference to a privacy policy is consistent with Meyer, which provides a “hyperlink describing the service, including the service’s privacy and security policy” (Meyer, 32:67-33:4), when a new member enrolls. And as noted for claim 9(a), Meyer recognizes the importance of member privacy by providing means of protecting member information, including by encrypting it and preventing its access by third party merchants. (Meyer, 47:42-47, 48:5-13, 48:24-26.) In sum, Fletcher confirms that an ordinarily skilled artisan would have known of website-related privacy protection issues, which would have further motivated the skilled artisan to implement the incentive system of Meyer such that its inventive selection process, which “**caus[es] a selected advertisement to be served to the first computer**” as described above, is performed by the account provider computer (“**BT computer system**”). This would have provided further protection for member information, thus giving members more confidence in using the system, thus potentially increasing its commercial success. I have also separately provided **Ground 2** which provides a further rationale, in combination with **Tittel**, to implement Meyer in this manner.

179. Finally, I note that relying on the *account provider computer* to select the incentive and cause it to be displayed on the consumer computer would not have rendered superfluous or redundant the *service provider computer* in the incentive distribution system of Meyer. Under the proposed combination, the service provider computer would have maintained its important role, consistent with the role of a conventional ad network, of enabling incentives to be delivered to the many third party websites that participate in the incentive delivery system. As noted, Meyer discloses that in order for third party websites to display incentives, those websites must include a URL that points to the *service provider computer* which, in turn, responds to the URL by implementing the logic described above for determining if the website visitor is a member. (Meyer, 28:11-26, 29:5-27.) This makes sense because, like a conventional ad network system, it is the service provider in Meyer – not the account provider – who manages advertising space across the potentially numerous third party websites. Indeed, it was common for ad networks to potentially manage advertising space across hundreds or thousands of different websites. (Zeff, *e.g.*, p.0083 (explaining that Flycast ad network had “more than 700 sites that reaches more than 12 million people each month”); *id.*, p.00145 (noting that ContentZone network community included “over 2,000 Web site owners and developers”), p.00133 (noting that LinkExchange ad network had more than 400,000

member sites).) It is likely that the account provider in Meyer, consistent with an advertiser in a conventional ad network model, may not have known the identity of many websites that can, through their association with the service provider, display incentives. Accordingly, although the account provider computer under the proposed combination would have selected an incentive and caused it to be delivered to the consumer computer, the service provider computer would have retained its critical role of responding to the URL on the third party websites, an essential step for delivery of incentives to the consumer computer.

“in exchange for a price less than the price cap”

180. Claim 9(d) concludes by reciting that causing a selected advertisement to be served to the first computer occurs “**in exchange for a price less than the price cap.**” As explained for claim 9(c), it would have been obvious based on Meyer, in combination with Zeff, to adapt the system to display advertisements “**in exchange for**” a “**price cap,**” *i.e.*, a bid that the account provider is willing to pay for display of its advertisement, for example, determined using an auction system. Thus, under the proposed combination of Zeff, Meyer and Edlund, after an account provider wins an auction managed by the service provider (described for claim 9(c)) for placement of Internet advertising, the service provider would have, in exchange for the “**price cap,**” arranged for third party websites to display the account

provider's advertisements in accordance with the process described above.

181. But the prior art discussed so far does not disclose that the advertising would have been delivered in exchange for a price “**less than the price cap.**” For example, Figure 7.12 of Zeff shows an exemplary Adauction.com screen in which “peter” transmitted a “**price cap**” by submitting a bid of \$8.50 for inventory of 500,000 impressions, which amounts to \$0.0085 per impression. (Zeff, p.0083, Fig. 7.12.) If “peter” wins that bid, he may have to pay an amount **equal to**, and **not less than**, the bid amount. For an individual advertising impression, therefore, “peter” may have to pay \$0.0085.

182. But the ability to implement an Internet advertising auction in which the winning purchaser would have paid **less than** its bid amount would have been obvious in further view of **Fisher**, which discloses known techniques for enhancing electronic auctions.

183. One technique described in Fisher is referred to as “proxy bidding,” which would have been familiar to anyone who had used the popular eBay auction site. In a “proxy bidding” system, a potential purchaser submits a bid that represents the maximum price the purchaser is willing to pay for the item. The proxy bidding system does not immediately bid that amount – it instead bids an amount slightly above the currently winning bid. For example, suppose a potential purchaser

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submits a \$100 maximum bid to purchase an auctioned item, and the current winning bid for that auction is \$25. A proxy bidding system would automatically place a bid for an amount incrementally above the current winning bid (such as \$30). If the purchaser is subsequently outbid (for example someone else bids \$35), the proxy bidding system can automatically submit another bid on behalf of the purchaser (such as \$40), and so forth, and the bidding system can continue this process until the \$100 maximum bid amount is reached. This allows the purchaser to potentially win the auction and pay an amount “**less than**” its \$100 maximum bid. As Fisher explains:

The electronic auction system of the present invention preferably includes a “Proxy Bidding” feature that may be applied to any of the auction formats described above... When Proxy Bidding is employed, a bidder places a bid for the maximum amount they are willing to pay. The electronic auction system, however, only displays the amount necessary to win the item up to the amount of the currently high proxy bids of other bidders. Typically, the currently high bids display an amount that is one bidding increment above the second highest bid or bids, although a percentage above the second highest bids may be used as well. When a new bidder places a bid that is above a currently displayed high bid, the proxy feature will, in general, cause the currently high bid to move up to an amount higher than the new bid, up to the maximum amount of the currently high bidder’s proxy bid. Once

a new bidder places a bid in excess of the currently high bidder's proxy bid, the new bid becomes the current high bid and the previous high bid becomes the second highest bid. This feature allows bidders to participate in the electronic auction without revealing to the other bidders the extent to which they are willing to increase their bids, while maintaining control of their maximum bid without closely monitoring the bidding. Participation is engaged in automatically on the bidder's behalf by the inventive system. The feature guarantees proxy bidders the lowest possible price up to a specified maximum without requiring frequent inquiries as to the state of the bidding.

(Fisher, 12:63-13:24.) I note that a "proxy bidding" system does not always guarantee that a purchaser who wins the auction pays less than its maximum price; of course, it is possible to have a scenario in which bidding activity drives the final price to exactly match the maximum bid price. But in most cases, when a purchaser wins the auction, the amount it will pay will be "**less than**" its maximum amount.

184. Fisher discloses a second way in which an auction could result in the winning bidder paying "**less than**" its bid amount. Fisher discloses what is commonly known as a "Dutch auction," which refers to an auction commonly used when a number of identical items are being auctioned to a large number of potential purchasers. As Fisher explains:

The electronic auction system of the present invention also provides a

“Dutch Auction” format, wherein the electronic auction system awards the merchandise to all of the top bidders for whom there is available inventory at the price bid by the lowest successful bidder. This format may be preferred by customers for being the most fair when a plurality of a specific item is being auctioned. As with all bidding, there will be a range of bids submitted. In the Dutch Auction format, the highest bidders are awarded the merchandise but at the same price for all successful bidders, the price bid by the lowest successful bidder.

(Fisher, 10:29-39.) For example, suppose a seller wishes to auction 100 of a specific item, and 1,000 bidders place bids for an item. The top 100 bidders will win the auction, but will each pay the lowest bid price offered among those 100 bidders. As a result, anyone who submitted a bid above the lowest bid among the 100 bidders will pay an amount that is “**less than**” its bid. A key benefit of a Dutch auction, as Fisher indicates above, is pricing fairness in treatment of winning bidders; there is no price discrimination as all winning bidders pay the same amount.

185. *Rationale and Motivation to Combine (Meyer, Zeff, and Edlund, in further view of Fisher)*: It would have been obvious to combine the teachings of Meyer, Zeff, and Edlund, as discussed for claim 9(c), with the further teachings of Fisher. As explained for claim 9(c), the proposed combination would have predictably resulted in the incentive system of Meyer in which the account provider

computer (“**BT computer system**”) electronically transmits a bid to the service provider computer (“**third party computer system**”) representing the maximum amount the account provider would be willing to pay for delivery of an advertisement. Under the further combination with Fisher, the advertisement would be delivered “**in exchange for a price less than the price cap,**” because with either a proxy auction, Dutch auction, or both, the account provider could have paid less than its bid amount. From an implementation standpoint, the combination could have been implemented by enhancing the electronic auction described for claim 9(c) such that the service provider computer (“**third party computer system**”) that receives the “**price cap**” from the account provider computer (“**BT company**”) implements either a proxy bidding or Dutch auction system, or both. For example, suppose the account provider in Meyer automatically submits a bid of \$8.50, but because of proxy bidding and/or a Dutch auction, the account provider wins the auction for a price of \$7.00. The price the account provider would have paid, on a per-advertising-impression basis, would have been \$0.0070, which is less than the \$0.0085 if it had won the auction for its specified (maximum) bid price. As noted previously, under the combination with Fisher, it would have been obvious that the bid submitted by the account provider in this example would have represented the maximum amount it was willing to pay. (Fisher, Ex. 1006, 12:65-13:2 (“When Proxy

Bidding is employed, a bidder places a bid for the maximum amount they are willing to pay.”).)

186. As noted previously, Meyer, Zeff and Edlund are analogous references. Fisher is also an analogous reference in the field of Internet-based commerce. As explained previously, it was well-known to use competitive auctions and bidding to establish pricing for Internet advertising sales. (Zeff, pp.0081-0082.) The teachings of Fisher would have enhanced those auctions by allowing proxy bidding and/or Dutch auction formats, which would have provided the benefits described below. Fisher thus would have been reasonably pertinent to a problem facing the '615 inventor of how to structure aspects of an advertising system to maximize revenue and profit from advertising sales. Fisher would also have been reasonably pertinent to a problem facing the '615 inventor of how to maximize the return-on-investment for an advertiser by providing safeguards against paying more than necessary.

187. Fisher itself provides several express motivations to combine. With respect to proxy bidding, it provides a clear benefit of preventing a potential purchaser from significantly overpaying for delivery of advertising if it submits an abnormally high winning bid. Fisher explains that proxy bidding “allows bidders to participate in the electronic auction without revealing to the other bidders the extent to which they are willing to increase their bids, while maintaining control of their

maximum bid without closely monitoring the bidding.” (Fisher, 13:15-20.) “The feature guarantees proxy bidders the lowest possible price up to a specified maximum without requiring frequent inquiries as to the state of the bidding.” (Fisher, 13:21-24.) An ordinarily skilled artisan would thus have been motivated to adapt the service provider computer in Meyer to provide a proxy bidding system in order to improve the fairness of auctions, thus increasing the confidence of potential bidders and beneficially resulting in greater participation in advertising auctions by the account provider (“**BT company**”) and other potential purchasers.

188. Fisher provides similarly strong motivations to employ a “Dutch auction” format: “This format may be preferred by customers for being the most fair when a plurality of a specific item is being auctioned.” (Fisher, 10:33-35.) This is because the Dutch auction format avoids price discrimination by guaranteeing that each winning bidder pays the same price.

189. This would have provided a direct benefit to the system of Meyer in situations where the auction attempts to sell a particular advertising package to a number of advertisers. For example, Figure 7.12 of Zeff discussed above shows an auction for 500,000 advertising impressions for a particular site. (Zeff, p.0083.) Zeff confirms that as of its 1999 publication, popular websites often had tens of millions of unique visitors each month. (Zeff, p.0055.) The Internet and Web

experienced massive growth and widespread adoption between the publication of Zeff in 1999 and the '615 patent priority date (June 2006), and as such, a potentially enormous inventory of advertising impressions would have been subject to sale. It thus would have been obvious to sell a package of advertisement impressions to multiple advertisers using a Dutch auction system, as described in Fisher, resulting in each bidder paying the lowest winning price and an amount less than the original bid price it provided to the auction system. As Fisher explains, a Dutch auction would have provided “the most fair” auction format in this situation. (Fisher, 10:33-35.) Moreover, in a competitive landscape involving multiple advertising networks (as Zeff describes), the ability to provide a more fair format would be an attractive incentive to potential bidders/advertisers when deciding with whom to spend their advertising dollars.

190. This combination would also have been complementary with Edlund’s automated auction bidding techniques discussed above. Under the proposed combination of Meyer, Zeff and Edlund, as discussed, the account provider computer in Meyer would have automatically queried the Internet advertising auction operated by the service provider and automatically submitted a bid – including automatically submitting a second higher bid in the event the account provider was outbid. The service provider computer, under the further combination

with Fisher, would have implemented a proxy bidding and/or Dutch auction system, potentially enabling the account provider to win the auction for an amount lower than its bid. The system under the proposed combination would thus have reaped both the benefits of Edlund's automated bidding system (*e.g.* automatically monitoring auctions and transmitting bids) and Fisher's proxy bidding and Dutch auction techniques (*e.g.* allowing the account provider to potentially win the auction without paying the full amount of its highest bid).

191. An ordinarily skilled artisan would have had more than a reasonable expectation of success. The ability to structure an auction to implement proxy bidding or a Dutch auction (or both) could have been implemented using conventional programming techniques. The logic to implement a proxy bidding or Dutch auction format would not have been complex, and the disclosures in Meyer, Zeff, Edlund, and Fisher provide more than sufficient detail to have enabled an ordinarily skilled artisan to implement the proposed combination without undue experimentation. And while Fisher does not specifically mention auctions used to sell Internet advertising, an ordinarily skilled artisan would have found Fisher's disclosures broadly applicable to any Internet-based auction, including the ones discussed in Zeff. Indeed, proxy bidding and the Dutch auction format, as discussed in Fisher, are generic auction concepts that predate the use of computers for

auctions,⁶ and are thus applicable to Internet auctions regardless of the nature of the products/services offered for sale. As noted previously, an ordinarily skilled artisan would have viewed the use of auctions to sell Internet advertising as an outgrowth of the massive popularity of Internet auction sites beginning in the mid- to late-1990s (such as eBay which launched in 1995), and as such, would have regarded the proxy bidding and Dutch auction techniques in Fisher as fully applicable to Internet auctions for advertising.

2. Claim 10

192. Claim 10 depends from claim 9 and recites, “**wherein, in the method performed by the system, the advertisement is automatically served to the first computer along with content of the one of the media properties visited by the**

⁶ For example, “proxy bidding” was implemented in live auctions well before the adoption of Internet-based auctions. With proxy bidding, a person could attend a live auction on behalf of a purchaser, and act as a “proxy” for the purchaser by submitting bids in an attempt to win the auction (up to the maximum amount). Dutch auctions pre-date Internet auctions by centuries.

first computer.” As explained for claim 9, the incentive icon or the incentive itself in Meyer (“**the advertisement**”) is not only automatically served to the consumer computer (“**first computer**”) – it is also presented along with the content of the third party website on which the icon appeared (“**first website**”). Meyer explains that users may find incentive icons on, for example, “manufacturer Web sites where products are described; retailer Web sites where products are sold; affinity Web sites for special interests such as entertainment, sports or travel; ad banners on Web pages,” among other places. (Meyer, 27:66-28:4; *see also id.*, 24:34-38 (“For example, the CIRCUIT CITY logo may be present when the incentive is viewed on the online site of merchant CIRCUIT CITY, while a different icon would appear when the incentive is viewed at a different location on the Web.”), 25:11-16 (Incentive icon “typically is a graphic icon defined by some lines of HTML which are embedded in HTML definitions of pages at various sites on the Internet.”), 27:66-28:25.) It would have been obvious to an ordinarily skilled artisan, or anyone who had used the Internet, that these websites would have existed for purposes beyond simply displaying the incentive icon, and thus, would have included additional content. It therefore would have been obvious that the advertisement in Meyer would have been automatically served to the consumer computer, it is served “**along with content**” of the third party website on which it appears, which Meyer confirms

can include product descriptions, information about entertainment, sports, or travel, and other information. (Meyer, 26:66-27:4.) And as explained for claim 9(d), the incentive and/or incentive icon in Meyer (“**the advertisement**”) is displayed while the user is visiting the third party website.

3. Claim 11

193. Claim 11 depends from claim 9 and recites, “**wherein the method performed by the system further comprises, automatically with the BT computer system, after part (d), recording data indicating that the BT company owes the price to a proprietor of the computer system controlling advertising space on the plurality of media properties.**” The subject matter of claim 11 is rendered obvious by the proposed combination. As explained for claim 9(b) above, the account provider computer in Meyer (“**BT computer system**”) can automatically record that an incentive icon or an incentive itself (either qualifying as an “**advertisement**”) has been delivered to a user. (See Meyer, 29:27-35 (noting that viewing instance of an incentive icon can be recorded in the MMBR-DB (member database), 34:48-65 (“Once the incentive is displayed.... The SRVPRVD process **307** is accessed to record the view event.... Note that in alternative embodiments, this information may be stored in the member database.”).) An ordinarily skilled artisan would have understood and found it obvious that this

information was recorded “**automatically**,” as nothing in Meyer suggests that the user had any role in (or even knowledge of) the recording of this information, as explained for claim 9(b).

194. It would have been obvious that this recorded information under the proposed combination provides “**data indicating that the BT company owes the price to the proprietor of the computer system controlling advertising space on the plurality of media properties**,” as claimed. This is because, under the proposed combination of Meyer with Zeff, the claimed “**price**” was based on CPM, and thus based on actual display of the advertisement. Using the example outlined in claim 9 above, if the account provider (“**BT company**”) had won an advertising auction at a CPM price of \$7.00, that means the price for displaying each individual advertisement would have been \$0.0070. Once an individual advertisement has been delivered – which is indicated by the records maintained by the account provider in Meyer (“**BT company**”) – the account provider owes that price to the service provider (“**the proprietor of the third party computer system**”) because the service provider has delivered on its promise of serving the incentive to a consumer computer. In other words, because advertisement payment is based on CPM and display of advertising under the proposed combination, a record indicating delivery of an incentive indicates that the account provider owes the price to the service

provider for that delivery.

195. It is not clear from claim 11 whether the language, “**after part (d), recording data indicating that the BT company owes the price to a proprietor of the computer system,**” requires that the BT company actually pay for the advertising until after it is delivered. In my opinion, the claim does not impose such a requirement as the claim only talks about recording that the BT company owes the price, *i.e.*, that the BT company has an obligation to provide the price to the proprietor of the third party computer system. The account provider advertiser in Meyer (“**BT company**”), if it has purchased advertising based on CPM pricing model, has agreed to pay in exchange for delivery of its advertisement. The obligation to pay for an advertising impression, therefore, exists after the promised advertising impression has occurred, regardless of whether the account provider has prepaid or agreed to pay only after delivery.

196. But even if the claim imposed a further requirement that the advertiser not pay until after part (d), this would still have been obvious. It would have been plainly obvious to implement the incentive system of Meyer such that the account provider (“**BT company**”) pays for advertising only after its incentives have been displayed. An ordinarily skilled artisan would have been motivated to implement the proposed combination in this way, among other reasons, to avoid potential

disputes with the service provider. Similar to the old adage, “buy now, pay later,” allowing the account provider to pay only after its incentives have actually been delivered avoids the risk to advertisers that it will prepay for advertisements that they were never delivered

197. This is confirmed by Zeff, *Advertising on the Internet* (1997) (“**Zeff 1997**”) [Ex. 1008], an earlier 1997 version of the 1999 Zeff (Ex. 1004) reference cited for **Ground 1**, which I have cited confirm the well-known motivation to pay for advertisement after delivery discussed above. Zeff 1997 explains that “[a]dvertisers should try to negotiate for payment after the ad runs, or to pay 50 percent before and 50 percent after the ad appears.” (Zeff 1997, p.0024.) Zeff 1997 therefore encourages advertisers (such as the account provider in Meyer under the proposed combination) to not pay in advance, for example, to pay after the advertisement has run. An ordinarily would have been motivated to implement the proposed combination in this manner to provide more security and assurance to the account provider that it will not end up prepaying for incentives that are never delivered. For example, if the account provider prepaid for display of incentives, it would likely have been difficult to obtain a refund of payments if, for example, the operator of the service provider computer (“**third party computer system**”) went out of business, suffered a technical failure, or simply failed to perform. (See Zeff

1997, p.0024 (“If the site is small, an advertiser may not want to pay in advance, because there’s not much an advertiser can do if the publisher doesn’t deliver.”).)

This was a particular concern in the early 2000s, as it was well-known to ordinarily skilled artisans (and the general public) that Internet-related companies were highly susceptible to financial problems during this era, as even prominent companies during this era ultimately failed and went out of business. An ordinarily skilled artisan would thus have been motivated to implement the system of Meyer under the proposed combination, to the extent required by claim 11, such that the account provider owes and provides payment after its incentives are delivered to and displayed on consumer computers, thus reducing the risks to the account provider and thus making it more willing in the first instance use the incentive system of Meyer to purchase incentives.

4. Claim 12

198. Claim 12 depends from claim 9, and further recites “**further comprising a storage containing visitor profile information and wherein, in the method performed by the system, the act in part (d) of causing a selected advertisement to be served to the first computer comprises (i) selecting an advertisement based on the visitor profile information in the storage, and (ii) serving the selected advertisement to the first computer.**” Claim 12 does not

appear to add any limitations not already discussed for claim 9. As discussed for part (d) of claim 9, above, under the proposed combination, the computer system in Meyer causes a selected incentive icon or incentive (“**an advertisement**”) to be selected based on either demographic or behavioral information stored by the account provider computer (“**based on visitor profile information in the storage**”), and served to the consumer computer (“**serving the selected advertisement to the first computer**”).

C. Ground 2: Claims 9-12 Are Obvious Over Meyer in view of Zeff, Edlund, and Fisher, in Further View of Tittel

199. As explained for **Ground 1**, the steps of claim 9 require that they be performed “**automatically with the BT computer system,**” as recited immediately after the preamble. As explained in the discussion of claim 9(d) above, if the claim were narrowly interpreted to require that the functions of claim 9(d) had to be performed **by** (and not just **with**) the BT computer system, it would have been obvious to implement the incentive system of Meyer under the proposed combination such that the “**BT computer system**” performs the actual selection of an incentive for delivery to the consumer computer.

200. **Ground 1** explained that an ordinarily skilled artisan would have been amply motivated to implement the incentive system of Meyer under the proposed

combination in this manner, including to increase efficiency and preserve the privacy of member information. **Ground 2** cites Tittel (**Ex. 1007**) to provide a further basis and additional rationale to implement claim 9(d) under the proposed combination in this manner. For all other claim limitations, the analysis **from Ground 1** applies.

201. Tittel is a book describing various known aspects of website development using HyperText Markup Language (HTML), which is used to encode web pages. Tittel discloses a well-known HTML “**redirection**” technique involving images placed on webpages. As was well-known to ordinarily skilled artisans, an image is typically embedded in a web page by including a URL in the HTML for the web page, the URL causing the browser to contact a server to retrieve the image for display. (Tittel, p.0047.) Tittel provides an example using the standard HTML image tag that includes a URL specifying an image (called “dotred.gif”) on the same server that provided the underlying webpage:

Hitting the (red) spot with an tag

Let's pick on that harmless-looking bullet point and turn it red. Adding an image to your HTML document is as simple as inserting a line using the tag:

```
<IMG SRC="graphics/dotred.gif">
```

This line contains a *reference* (URL) for a .GIF file named `dotred.gif`. In this case, it's a relative reference that points to a file that the Web server expects to find in a subdirectory named `graphics` — skulking directly beneath the directory where the current page (the page from which the link is called) resides.

(Tittel, p.0047.) The example above, as noted, will retrieve the image (“dotred.gif”) from the subdirectory “graphics” on the same server from where the current page was served. (*Id.*)

202. But Tittel confirms that there is no requirement in HTML that a URL refer to the same server that is providing the current web page – the URL can point to any accessible web server, anywhere, that can be expressed as a URL:

Snagging an image from far away

If you wanted to link to an image file of a red dot (`dotred.gif`) located on another Web site, you'd have to use an absolute URL (sometimes called a *full URL*) in the `<img>` tag, like this:

```

```

If you use a full URL to a faraway site in a link on your page, then every time a user loads the image, the browser that hosts the Web page actually links to the other remote Web server to retrieve the graphic. This increases the time needed for the browser to load the file (not a kindly gesture). If the remote location is not online, the browser can't load the image at all (an even unkindlier gesture). Therefore, it usually works better if you keep your graphics in the same place on your own server and thus avoid getting the unkindest gesture of all — mass exodus of your visitors.

(Tittel, p.0047.)

203. The technique described above is an example of “**redirection**” because the URL causes the web browser to “actually link[] to the other remote Web server to retrieve the graphic,” in this example, the server at “someothersite.net.” (*Id.*; see also *Microsoft Computer Dictionary* (5th ed. 2002) [Ex. 1012], p.005 (“**redirection** *n.* The process of writing to or reading from a file or device different from the one that would normally be the target or the source.”).)⁷ And although Tittel states that

⁷ As I noted in **Part V.5**, the term “**redirection**” was (and still is) commonly used to describe the scenario in which the web browser is instructed to navigate *away*

from the current page and to display an *entirely different* web page. For example, many standard HTML “redirection” techniques can instruct a web browser to navigate to a different web page at a second URL, which will replace the currently-displayed web page in the browser. The ’615 patent uses the term “redirection” in a broader sense that does not require the browser to navigate *entirely* away from a current page. Rather, redirection can occur when the web browser is instructed to obtain some of the content for the current page (such as an ad) from another site. (’615, 1:61-64 (“For a site to have its ad served by an ASP-hosted ad server, such as the one operated by DoubleClick, the site needs to redirect visitors from the site to the DoubleClick ad server, to fetch the ad from the server.”), 4:9-13 (“Once the site redirects the ad space on the page to the ad network (so the ad network could fill the ad space with an ad sold by the ad network), the ad network controls the ad space and has access to the visitor viewing the ad space that was redirected to the ad network by the site....”), 5:37-55 (describing an example in which the “weather.com” site can redirect to a BT company server to serve ad).) This technique is consistent with the technique described in Tittel, under the proposed combination for **Ground 2**, in which the incentive icon and information can be

this redirection technique may have drawbacks because it relies on a remote server that may be online (*id.*), those considerations would have been irrelevant to the proposed combination with Meyer as explained below. Tittel explains that this redirection technique also offers benefits in certain situations, such as “[i]f your site can benefit from links to remote images that change over time (such as weather map, clock, of Webcam picture),” among others. (Tittel, p.0048.)

204. *Rationale and Motivation to Combine (Ground 1 Prior Art with Tittel)*: As mentioned, I have cited Tittel in **Ground 2** as an additional basis and motivation for finding that claim 9(d), under the proposed combination, is performed by the account provider computer in Meyer (“**BT computer system**”), to the extent this is deemed a requirement of the claims. It would have been obvious to combine the prior art cited for Ground 1 with Tittel, predictably resulting in the incentive system under the proposed combination in which the incentive icon in Meyer is provided to the third party website as a result of a URL that points to the account provider computer (“**BT computer system**”), thus resulting in a “**redirection**” of

displayed on the current page, response to a redirection to the account provider computer (“**BT computer system**”) to obtain that information.

the web browser to the account provider computer to retrieve the incentive icon for display. This provides another basis to find that it would have been obvious to implement Meyer under the proposed combination such that the step of “**upon receiving a redirection of the first computer while the first computer is visiting one of the plurality of third party media properties, causing a selected advertisement to be served to the first computer,**” would have been performed by the account provider computer (“**BT computer system**”).

205. In terms of implementation, this proposed combination would have been straightforward, and in fact, trivially simple to an ordinarily skilled artisan. As explained in the discussion of claim 9(d) in **Ground 1**, a third party website in Meyer includes a URL that points to a program (“servlet”) on the service provider that causes display of the incentive icon. (Meyer, 28:11-26; *see also id.*, 38:6-10 (“That is, HTML is embedded in various locations that includes the URL of a servlet that selects one or more incentives and displays the incentive icons according to one or more characteristics of the consumer”).) It would have been obvious to adapt the system of Meyer such that the service provider “servlet” responds by sending to the web browser – instead of the incentive icon itself – a second URL pointing to the account provider computer (“**BT computer system**”) where the incentive icon can be retrieved. That URL, as described in Tittel and known to ordinarily skilled

artisans, would have caused the account provider computer to receive a redirection from the third party website, to which it could have responded by providing the incentive icon and delivering the incentive as described for claim 9(d) in **Ground 1**. Many other implementations would have been obvious, but this exemplary implementation would have required only minor changes to Meyer because it would not change the existing role of the service provider computer with respect to reading the cookie from the consumer computer and responding to the initial URL from the third party website.

206. Tittel is an analogous reference in the field of web-based delivery of information. Because Tittel is a reference book on technical aspects of implementing web-based systems using HTML, it would have been reasonably pertinent to a number of problems facing the '615 inventor. (Tittel, pp.0024-0025.) For example, the sections of Tittel relied upon above would have been reasonably pertinent to how to implement web browser redirection using industry-standard HTML techniques, a technique relied upon by the '615 alleged invention for recognizing the user and delivering advertisements. ('615, *e.g.*, 8:12-15, 9:16-22, 10:15-19.) The analogousness of Tittel is further enhanced by how it would have enhanced Meyer under the proposed combination, as described below.

207. An ordinarily skilled artisan would have been motivated to combine

Meyer with Tittel in the manner described above. As detailed for **Ground 1**, an ordinarily account provider in Meyer (“**BT company**”) can, for example, be an “external membership organization” such as a credit card issuer. (Meyer, 26:19-22; *see also id.*, Fig. 22 & 33:10-14 (“The particular example of FIG. 22 is for incentives sponsored by a credit card external membership organization....”), 30:23-32 (“In some situations, an external membership organization, for example... a particular credit card organization (members are defined as holders of the particular credit card), sponsors incentives....”).) Meyer further discloses additional features available for the display of icons for “external membership organizations” such as credit card issuers, including further ability to customize or tailor the incentive icon selection:

External Membership Organizations

In some situations, an external membership organization, for example, the American Automobile Association (AAA) or a particular credit card organization (members are defined as holders of the particular credit card), sponsors incentives that, in one case, have different icons than the same incentives viewed elsewhere, and/or in another case can only be viewed by members of the membership organization, and/or in some cases, can be viewed by anyone, but can only be clipped by a member of the external membership organization.

(Meyer, 30:22-32; *see also id.*, 24:27-34 (“Also, a different version of the same base

incentive icon may be used according to the characteristics of the consumer, including whether or not the consumer is a member or is a member of an external membership organization, and including where on the network the icon is being viewed. The same discount for the same goods/services may have a different icon when viewed at a different Web site.”.) Meyer thus contemplates that the actual incentive icon selected may vary based on a multitude of factors, including the characteristics of the consumer, its membership in a membership organization (such as a credit card company), or “where on the network the icon is being viewed.” (*Id.*) Tittel confirms that URL redirection is particularly useful in such a situation, *i.e.*, when the content of an image may change:

Absolute URLs do require judicious, careful, and limited use, though that doesn't mean you have to avoid them on pain of cyberwarts. If your site can benefit from links to remote images that change over time (such as a weather map, clock, or Webcam picture), or from a large, complex image in a file too big to park on your server, you might want to try such a link. In the first case, the other site maintains the changing image and your users see it directly from their sites, included in your page. In the second case, you save on server disk space by pointing to a remote location for a multimegabyte picture. (Of course, you may want to warn your users about what they're getting into before you encourage them to click.)

(Tittel, p.0048 (red emphasis added).) This benefit discussed in Tittel would have been well-known to ordinarily skilled artisans as it is merely a web-based application of the broader principle that when retrieving information for display, going “back to

the source” of that information (rather than using a locally-stored copy) will yield more up-to-date information. As applied to the incentive icon of Meyer, the technique in Tittel would have beneficially enabled the account provider computer to select the most appropriate incentive icon. The information needed to make this selection is in the possession of the account provider computer. (Meyer, 29:16-21.) And as I explained for **Ground 1**, it would have been obvious and beneficial to implement the proposed combination such that this information was available only to the account provider computer, for example, to ensure member privacy. It therefore would have been obvious to adapt the system of Meyer to provide a URL to the browser causing a redirection received by the account provider computer, which would have responded by selecting and delivering the most appropriate incentive icon based on the current situation and member information. This would have provided a clear benefit over relying on the service provider computer to select the incentive icon, as it would not have the membership-related information needed to make the dynamic icon selection discussed in Meyer. The service provider computer, without access to this information, may have been forced to resort to serving a static or default incentive icon, thus defeating one of the features of Meyer.

208. Nothing in Tittel would have “taught away from” or otherwise discouraged the proposed combination. As noted above, Tittel correctly observes

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that using URL redirection does create a dependency on the remote web server; for example, the remote web server may go offline or, in some situations, the URL redirection may increase the amount of time needed to load the page because of the overhead associated with contacting another server. (Tittel, p.0047.) But these considerations would have been carried no weight in the proposed combination with Meyer because, as explained above, the incentive system in Meyer already relies on the account provider computer for the display of incentive icons. For example, in order to even display an incentive icon for a dynamic incentive, the member ID from the consumer computer is used to retrieve member information from the account provider computer. (Meyer, 29:5-21.) Because the Meyer system already relies heavily on the account provider computer in the incentive display process, the proposed combination does not present the situation contemplated in Tittel in which a website creates an arguably unnecessary dependency on a second and entirely independent website. Adapting Meyer to provide a URL redirecting the consumer computer's browser to the account provider computer would therefore not have imposed any new dependencies or new points of failure that did not already exist in Meyer's system. And any potential downsides to using URL redirection to the account provider would have been outweighed by the benefits described above, including the benefit of allowing the account provider to select a more appropriate

incentive icon based on current member and other factors.

209. An ordinarily skilled artisan would have had at least a reasonable expectation of success as the techniques in Tittel were well-known to even novice web programmers by June 2006. The ability to formulate URLs to request information from remote servers could have been implemented using standard HTML and conventional web programming techniques. An ordinarily skilled artisan could have implemented the proposed combination of Ground 2 using conventional techniques, and the disclosures in the prior art provide more than sufficient detail to implement the features upon which I rely, without undue experimentation.

VI. NO SECONDARY CONSIDERATIONS OF NONOBVIOUSNESS

210. As explained in **Part III.B**, I understand that “secondary considerations” may be used as indicia of nonobviousness, provided that any such consideration has a nexus to the invention claimed. I understand from Petitioner’s counsel that Patent Owner in the related district court litigation has not yet identified any evidence related to secondary considerations with a nexus to the claimed invention. Nor am I aware of information, such as commercial success, unexplained results, long felt but unsolved need, industry acclaim, simultaneous invention, copying by others, skepticism by experts in the field, and failure of others,

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suggesting that the claims addressed in this Declaration are not obvious. To the extent Patent Owner later provides information it claims relates to secondary considerations, I reserve the right to supplement my analysis and opinions to comment on it.

VII. CONCLUSION

211. In signing this Declaration, I recognize that the Declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in this proceeding. If required, I will appear for cross-examination at the appropriate time. I reserve the right to offer opinions relevant to the invalidity of the '615 patent claims at issue and/or offer testimony in support of this Declaration.

212. I hereby declare that all statements made herein of my own knowledge are true and that all statements are made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001.

Dated: May 31, 2022

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Chris' followed by a stylized surname.

Christopher M. Schmandt
Winchester, MA

EXHIBIT A

Christopher Schmandt

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Education

M.I.T., Master of Science, Visual Studies (Computer Graphics), 1980

M.I.T., Bachelor of Science, Computer Science, 1978

Professional Experience -- MIT

Media Laboratory, Principal Research Scientist, 1985-2018 (retired)
Director, Living Mobile Research Group (formerly Speech + Mobility)

Architecture Machine Group, Research Associate, 1980-1984

Architecture Machine Group, Research Assistant, 1979-1980

Architecture Machine Group, Graphics Programmer, 1977-1979

Departmental Undergraduate Research Opportunities Program Coordinator, 1984-2018

Laboratory Intellectual Property Committee 2001-2016, chair 2002-2009

Departmental Committee on Graduate Studies, 1996-2001, 2007-2018

Sponsored Research Activities

Alerting and Mobile Messaging, Digital Life Consortium, MIT Media Lab, 1997-2018

Acoustical Cues to Discourse Structure, National Science Foundation, Principal Investigator, 1995-1998

Parsing Radio, News in the Future Consortium, MIT Media Lab, 1993-1999

Desktop Audio, SUN Microsystems, Inc., Principal Investigator, 1989-1996

Voice Interaction in Hand Held Computers, Apple Computer, Principal Investigator, 1991-1993

Voice Interfaces for Network Services, AT&T, Principal Investigator, 1989-1991

Back Seat Driver, NEC, Principal Investigator, 1988-1991

Acoustic and Visual Cues for Speech Recognition, DARPA, co-Principal Investigator, 1986-1988

Personal Computers and Telephony, NTT Public Corporation, Principal Investigator, 1984-1989

Home Telecomputing, Atari, Inc., Principal Investigator, 1983

Testifying legal engagements within the last five years, representing party in italics

- *Facebook v. Windy City*, 2017
- *Facebook v. EVERYMD.COM LLC*, 2017
- *Comcast v. Promptu*, 2017
- *Express Mobile, Inc v. Big Commerce*, 2017
- *Facebook v. Hypermedia*, 2017
- *Microsoft v. Uniloc 2017 LLC*, 2019
- *Microsoft v. SpeakWare*, 2019
- *Bumble Trading LLC v. Match Group LLC*, 2019
- *Tile Inc. v. Cellwitch Inc*, 2019
- *Blackberry Ltd v. Facebook, Inc* 2020
- *EROAD Ltd v. PerDiem Co*, 2020
- *Snap Inc. v. SRK Technology LLC*, 2020
- *Shopify Inc Ltd v. Express Mobile Inc*, 2020
- *Express Mobile Inc, v Wix Ltd* 2020
- *Motorola Mobility LLC v. Ironworks patents, LLC*. 2021
- *Express Mobile Inc, v GoDaddy Inc* 2021
- *Bumble Trading LLC v. Kinectus, LLC*. 2021
- *Tile, Inc v. Linquet Technologies, Inc*. 2021
- *Facebook, Inc. v. Palo Alto Research Center, Inc*. 2021
- *Unified Patents, LLC v. Gesture Technology Partners, LLC*. 2021
- *Quantum Metric, Inc v. Content Square Isreal, Ltd.* 2021

Professional Experience -- Intellectual Property

Co-inventor on U.S. Patents

- 5,177,685 for "Automobile navigation system using real time spoken driving instructions"
- 6,728,348 for "System for storing voice recognizable identifiers using a limited input device such as a telephone key pad"
- 6,937,986 for "Automatic dynamic speech recognition vocabulary based on external sources of information"
- 7,098,776 for "Methods and apparatus for vibrotactile communication"
- 7,392,280 for "Method for summarization of threads in electronic mail"
- 7,738,637 "Interactive voice message retrieval"
- 7,443,283 for "Methods and apparatus for connecting an intimate group by exchanging awareness cues and text, voice instant messages, and two-way voice communications"
- 7,865,560 for "System for summarization of threads in electronic mail"
- 8,121,653 for "Methods and apparatus for autonomously managing communications using an intelligent intermediary"
- 8,135,128 for "Animatronic creatures that act as intermediaries between human users and a telephone system"

Co-inventor on U.S. Patent Applications

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