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Transcript of Mark Crovella, Ph.D.

Date: October 24, 2025

Case: Google, LLC -v- BrodTi, Inc. (PTAB)

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Conducted on October 24, 2025

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1	IN THE UNITED STATES PATENT AND TRADEMARK OFFICE ----- BEFORE THE PATENT TRIAL AND APPEAL BOARD ----- GOOGLE LLC, Petitioner, v. BRODTI INC., Patent Owner. ----- Case No. IPR2025-00472 U.S. Patent No. 11,416,898 B2 DEPOSITION OF MARK CROVELLA, PH.D. (Conducted Remotely Over Zoom) Friday, October 24, 2025 9:57 a.m. Job No. 604380 Pages 1 - 74 Reported by: Joan V. Cain	3	A P P E A R A N C E S ON BEHALF OF PETITIONER: ANDREW C. MACE, ESQUIRE COOLEY LLP 3175 Hanover Street Palo Alto, California 94304 Telephone: (650) 843-5000 ON BEHALF OF PATENT OWNER: TIM P. CREMEN, ESQUIRE SHEPPARD MULLIN RICHTER & HAMPTON LLP 2099 Pennsylvania Avenue NW Suite 100 Washington, D.C. 20006 Telephone: (202) 747-1900
2	Deposition of MARK CROVELLA, PH.D., conducted remotely over Zoom. Pursuant to Notice, before Joan V. Cain, Court Reporter and Notary Public in and for the Commonwealth of Virginia.	4	C O N T E N T S EXAMINATION OF MARK CROVELLA, PH.D. PAGE By Mr. Cremen 5 E X H I B I T S PREVIOUSLY MARKED EXHIBITS REFERENCED EXHIBIT 1001 U.S. Patent No. 11,416,898 13 EXHIBIT 1002 Declaration of Mark 10 Crovella, Ph.D., 1/17/25 EXHIBIT 1005 U.S. Patent Publication No. 62 2001/0039515 A1, 11/8/01 EXHIBIT 1015 International Patent No. W0 66 01/59653 A1, 8/16/01

5 1 PROCEEDINGS 2 --- 3 9:57 a.m. EDT 4 October 24, 2025 5 --- 6 THE COURT REPORTER: Counsel, do you 7 stipulate that I may swear in the witness even 8 though I am not in the physical presence of the 9 witness? 10 MR. CREMEN: I do. BrodTi does. 11 MR. MACE: And counsel for petitioner, yes. 12 Whereupon, 13 MARK CROVELLA, PH.D., 14 having been duly sworn under penalties of perjury by 15 the Notary Public, was examined and did testify as 16 follows: 17 THE COURT REPORTER: Thank you. 18 Please begin. 19 EXAMINATION BY COUNSEL FOR PATENT OWNER 20 BY MR. CREMEN: 21 Q Good morning. 22 A Good morning.	7 1 of my questions, but unless he instructs you not to 2 answer, you understand that you should answer, 3 correct? 4 A That's right. 5 Q And, please, if you don't understand one of 6 my questions, please feel free to ask me to clarify 7 or reword. I'm happy to do so. 8 A Okay. 9 Q And, finally, I don't think this deposition 10 is going to take too long today, hopefully, but I 11 plan to go maybe an hour to -- between 60 and 90 12 minutes between breaks, but if you need to take a 13 break before I mention it, just let me know. 14 Okay? 15 A That's fine. 16 Q Is there anything preventing you from 17 answering truthfully and accurately today? 18 A No. 19 Q Did you do anything to prepare for this 20 deposition? 21 A Yes. 22 Q What did you do?
6 1 Q My name is Tim Cremen. I represent BrodTi, 2 the patent owner in this -- in this dispute. 3 Could you please introduce yourself for the 4 record? 5 A Yes. My name is Mark Crovella. I'm a 6 professor here at Boston University. 7 Q Have you been deposed before? 8 A I have. 9 Q How many times, roughly? 10 A I don't have an exact number, but I would 11 say in the neighborhood of about 30 times. 12 Q Okay. So you've been through this drill 13 before, so just a few reminders before we get into 14 the meat of the discussion. 15 You understand your testimony is under 16 oath, correct? 17 A I do. 18 Q And during our time together, you know that 19 I will ask you questions, and you'll answer them, 20 right? 21 A That's right. 22 Q Okay. Now, your counsel may object to one	8 1 A I reviewed my reports. I reviewed the 2 patents. I reviewed the exhibits. I had 3 discussions with counsel. 4 Q How much time did you spend preparing for 5 the deposition? 6 A I don't have an exact number on that. 7 Q Could you give me a rough estimate? 8 A Between 10 and 20 hours. 9 Q And other than reviewing the documents you 10 mentioned and meeting with counsel, did you do 11 anything else to prepare for the deposition? 12 A Not that I recall as I sit here now. 13 Q Do you remember when you first began work 14 on your declaration? 15 A I don't have the exact date. It was 16 sometime in the latter part of last year -- oh, I'm 17 sorry. Did you ask about the deposition or -- 18 Q The declaration. Your declaration. 19 A The declaration. I'm sorry. That's right. 20 It was -- the work began sometime in the latter part 21 of last year. 22 Q Are you aware that there is -- sorry.

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9 1 Strike that. 2 Are you aware if there is a -- sorry. 3 Strike that whole thing. 4 Do you understand the difference between an 5 Inter Partes Review and a District Court action 6 regarding patents? 7 A I do. 8 Q Do you -- are you aware that there is a 9 District Court action between BrodTi and Google? 10 A I'm aware of that fact. 11 Q Are you also retained as an expert for that 12 matter? 13 A At present, no. 14 Q It's my understanding that you have a copy 15 of your declaration and the exhibits to the 16 declaration with you today; is that correct? 17 A That's right. I have clean copies without 18 any markings. 19 Q Okay. And I -- I see that you're in your 20 office. So this is part of the weirdness of Zoom 21 depositions that I'm sure you have notes and things 22 around there. So I'm not going to ask you about any	11 1 attorneys, about the substance of your declaration? 2 A No, I didn't. 3 Q Can you give me an estimate of how many 4 hours you spent preparing your declaration that's 5 Exhibit 1002? 6 A Again, I don't have a precise number. I 7 think I would estimate between 40 and 60 hours. 8 Q Do you have a memory of how many drafts 9 were prepared? 10 A No, I don't have a precise memory of that. 11 Q Other than the preparation for your 12 deposition today, have you done any work on this 13 matter since the time you signed your declaration? 14 A No, I haven't done work other than the work 15 that I've described in preparing for the deposition. 16 Q Okay. Let's turn to paragraph 7 of your 17 declaration, if you please. 18 A Okay. 19 Q Please read through paragraph 7 and let me 20 know when you're done. 21 A Okay. 22 Q Is everything in paragraph 7 still true?
10 1 of those, but if you refer to notes or take notes 2 during the deposition, please let me know, and I'll 3 ask for copies of those. Okay? 4 A Understood. 5 Q Okay. Let's look first at your 6 declaration, which is Exhibit 1002 in this matter. 7 A Okay. 8 Q Could you give me an overview of the 9 process by which you prepared your declaration? 10 A Yes. So I started the discussions with 11 counsel. We discussed the -- the patent, prior art, 12 and then when we were on the same page with respect 13 to the questions in front of us, we prepared the 14 declaration collaboratively. Each of us contributed 15 some, but the declaration was prepared in its final 16 form by me, and I reviewed every word in it, and 17 every word in it is my opinion and I stand behind 18 it. 19 Q Did anyone other than you and the attorneys 20 write any portion of your declaration? 21 A No. 22 Q Did you speak with anyone, other than your	12 1 A Yes, it is. 2 Q And what is your hourly rate? 3 A You got me. I'm not remembering precisely 4 what my hourly rate is, but my best estimate is that 5 it's \$700 an hour. 6 Q Okay. Let's look at the next paragraph, 7 paragraph 8, in your declaration. Please review 8 that along with the table that follows and let me 9 know when you're done. 10 A Okay. 11 Q Okay. And the table in -- the table after 12 paragraph 8, you have listed 16 exhibits; is that 13 correct? 14 A That's right. 15 Q Did you obtain each of these exhibits from 16 counsel, or did you find some of them on your own? 17 A I don't recall which of these were -- came 18 from counsel and which of them came from my own 19 work. 20 Q Do you recall finding any of the exhibits 21 listed in the table in paragraph 8 on your own? 22 A I may have. I just don't recall.

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13 1 Q Do you recall reviewing the Notice of 2 Institution for this IPR? 3 A I don't recall whether I reviewed it. I'm 4 aware that -- I'm aware that the petition was 5 instituted, but I don't recall the details of the 6 notice. 7 Q And do you recall reviewing any documents 8 from the District Court litigation between the 9 parties? 10 A No. 11 Q Okay. Exhibit 1001 in the table after 12 paragraph 8 is the '898 patent, correct? 13 A That's right. 14 Q And you reviewed the '898 patent while 15 preparing your declaration, correct? 16 A That's right. 17 Q Do you recall how much time you spent 18 reviewing the '898 patent? 19 A Within the time frame that I've already 20 described for preparing the report, I don't recall 21 what portion of that would be allocated to my 22 reading of the '898 patent.	15 1 Q What is the funding obtained for? 2 A Well, the specification describes some 3 example embodiments, where the funding would go to a 4 project like creating a film. 5 Q Okay. In the -- still on the first page of 6 the patent, the first sentence of the Abstract 7 reads: "A method of producing and financing a 8 predetermined project is disclosed." 9 Do you see that? 10 A Yes. 11 Q And that's a project that you mentioned? 12 A A project like that is an example that's 13 provided in the specification, yes. 14 Q And in the context of the '898 patent, 15 would you agree that a project has to be something 16 that funds can be raised for? 17 A Are you asking me about the meaning of the 18 term in a particular claim? 19 Q Not in the claim. Just in the patent in 20 general. It mentions project a number of times. 21 I'm trying to understand your understanding of 22 project.
14 1 Q Do you -- why don't we turn to that 2 exhibit. Exhibit 1001 is the '898 patent. 3 A Okay. 4 Q If we can look at the first page of 5 Exhibit 1001, I'll direct you to the upper left-hand 6 corner, the inventor is listed. 7 Do you see that? 8 A I do. 9 Q Do you know the inventor? 10 A No. 11 Q Were you aware of the '898 patent before 12 you began work on this matter? 13 A No, I wasn't. 14 Q Do you think you have a good understanding 15 of the '898 patent based on your review? 16 A Yes, I think so. 17 Q What -- what was the problem the '898 18 patent was trying to solve, in your view? 19 A So the '898 patent describes a method for 20 obtaining funding for -- obtaining funding by 21 arranging for advertisements to be placed on 22 websites and collecting the revenue from that.	16 1 A So my understanding of project was 2 developed in order to interpret claims 5 and 6, and 3 in those claims, we have the data describing a 4 project type. So the example -- we have some 5 examples of project type in claim 6, for example: 6 "...a non-profit project, a business project, a real 7 estate project...an art project." 8 Those informed my understanding of project 9 and the plain and ordinary meaning of project, which 10 is how I interpreted it for the patent. 11 Q Okay. In each of those cases, would that 12 be something that funds could be raised for? 13 A There's nothing in claims 5 and 6 that 14 limit project to being something that funds would be 15 raised for. The specification describes example 16 embodiments where that's the case, but there's 17 nothing in the claims that limit it. 18 Q Okay. Then a little bit later in the 19 Abstract, maybe about 12 lines from the bottom, 20 there's a sentence that starts: "Further, if the at 21 least one advertising..." 22 Do you see that?

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17 1 A Yes. 2 Q Go ahead and read that sentence and then 3 all the way to the end of the Abstract, or the 4 entire Abstract if you prefer, and I'll ask you a 5 question. 6 A You want me to read it out loud? 7 Q Oh, no. Not into the record. Sorry. Just 8 read it to yourself. 9 A Oh, okay. 10 Okay. 11 Q All right. In that portion that I pointed 12 you to, it refers to a media property. 13 Do you see that term? 14 A Yes. 15 Q Do you have an understanding of what a 16 media property is in the context of the '898 patent? 17 A I didn't find the phrase in the claims. 18 The media property as described in specification is, 19 I think, examples I provided in the -- in the 20 background of the specification, but I don't see 21 media property in the claims. 22 Q Do you remember what any of the examples of	19 1 Q What is your understanding of the purpose 2 of this section? 3 A In the patent itself, this section 4 describes the prior filings that this application is 5 related to. 6 Q Did you review the other applications 7 identified in the cross-referenced related 8 application section? 9 A I've looked at the file history for this 10 patent. I didn't find anything in particular in the 11 file history that particularly informed the 12 interpretations of the claims. So I -- I don't 13 recall the details of these prior applications. 14 Q Do you recall looking at any of the three 15 applications I believe that are listed in this 16 section? 17 A Yeah, I don't recall if I looked at those. 18 Q Okay. Let's go to the next section of the 19 patent that's titled "Field of the Invention." 20 Do you see that section? 21 A I do. 22 Q Okay. Please go ahead and read the
18 1 media property were in the specification? 2 A Well, as I read media property here in the 3 Abstract, it relates, in the specification, to 4 things, for example: In the Summary of the 5 Invention, column 2, we have a media outlet, which 6 can be a website, a newspaper, a telephone 7 directory, a radio, or television. 8 So I would interpret those as media 9 properties. But, again, these are not terms that 10 show up in the claims, and they're not terms that I 11 was concerned with in my analysis of the claims. 12 Q Okay. Let's turn to Exhibit 5 of Exhibit 1 13 [sic]. It's where the specification begins for the 14 '898 patent. Let me know when you're there. 15 A Okay. 16 Q At the top of column 1, there's a section 17 titled "Cross-Reference to Related Application." 18 Do you see that section? 19 A I do. 20 Q Please take a moment to read the paragraph 21 there and let me know when you're done. 22 A Okay.	20 1 paragraph under field of invention and let me know 2 when you're done. 3 A Okay. 4 Q On the third line of this paragraph, there 5 is a phrase, "media productions." 6 Do you see that? 7 A I do. 8 Q Do you have an understanding what media 9 productions means in the context of the '898 patent? 10 A Again, this is not a term that showed up in 11 the claims and not one that my analysis of the 12 claims needed to interpret. My understanding, from 13 reading this, is that it's, for example, a film 14 production. 15 Q Okay. Let's look at the next section 16 titled "Background of the Invention." There are 17 six, seven paragraphs here. 18 Please go ahead and read this section and 19 let me know when you're done. 20 A Okay. 21 Q The very last paragraph in this section at 22 column 2, lines 26 through 28, starting: "Due to

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21 1 the above described limitations..." do you see that 2 paragraph? 3 A I do. 4 Q Earlier we discussed the problem that the 5 '898 patent was trying to solve. Does this 6 paragraph that we're looking at describe that 7 problem? 8 A Well, as I said, the -- the claims describe 9 a system for collecting revenue and placing ads on 10 websites. This specification describes a motivation 11 for doing that, but doesn't limit the scope of the 12 claims to the -- to the problem that's being 13 described here. 14 Q Okay. Let's take a look at the next 15 section titled "Summary of the Invention." That 16 starts on column 2, lines, I guess, 32 and continues 17 on through the first few lines of column 3. 18 Could you please review those paragraphs 19 and let me know when you're done? 20 A Okay. 21 Q Would you agree with me that the first 22 three paragraphs of this section each indicate that	23 1 Q Okay. What is your understanding? 2 A The -- the example, like in a preferred 3 embodiment, can demonstrate that the applicant has 4 reduced the invention to practice, is in possession 5 of the invention, and can provide context for the -- 6 for the claims. 7 Q Are you an inventor on patents? 8 A Yes. I have ten patents. 9 Q Have you ever heard of the concept that 10 patent claims should be understood to cover the 11 preferred embodiments of a patent? 12 A I understand that the -- the preferred 13 embodiments are examples of systems that, you know, 14 implement or embody the claims. 15 Q If -- do you understand that when you are 16 seeking to construe terms of a claim that the claims 17 should be construed to cover all of the preferred 18 embodiments of the patent? 19 A Again, the -- the claim construction that 20 I've used throughout this process has been the plain 21 and ordinary meaning of claim terms as understood by 22 a person of ordinary skill in the art, and that's
22 1 a project funding method is an object of the present 2 invention? 3 A The first three paragraphs describe that a 4 motivation for the method is raising funds, but 5 doesn't -- as I've mentioned already, these don't 6 limit in any way the scope of the claims to just a 7 fund-raising system. 8 Q Okay. Let's go on to the section titled 9 "Detailed Description of a Preferred Embodiment," 10 starting in column 3 at line 23 or so, I guess. 11 Do you see that section? 12 A Yes. 13 Q I'm not going to ask you to read this whole 14 section at this moment, but I am going to ask you 15 questions about certain paragraphs. So if you need 16 to review more than the paragraph I'm asking about, 17 please feel free to do so. 18 A Okay. 19 Q Before we get into that, though, do you 20 have an understanding of why sections like these are 21 included in patent specifications? 22 A Yes. Generally speaking, I do, yes.	24 1 informed by the specification, but it's not limited 2 by the specification. 3 Q When you were comparing the limitations of 4 the claims of the '898 patent to the prior art 5 references you identified, did you consider whether 6 the scope you were applying to the claim terms was 7 supported by the -- by the preferred embodiments of 8 the '898 patent? 9 A The scope of the terms in the claims, 10 again, as understood by a person of ordinary skill 11 in the art in their plain and ordinary meaning that 12 I applied was encompassing the specification, but 13 not limited to it. 14 Q Okay. Let's go to paragraph -- the 15 paragraph at column 4, lines 30 through 34. Go 16 ahead and read that paragraph and any other adjacent 17 text that you feel necessary. 18 A Okay. 19 Q In the first sentence of this paragraph, it 20 states: "Advertising on the internet is created by 21 and through the media property and content on the 22 web property."

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25 1 Do you see that sentence? 2 A Yes. 3 Q Do you have an understanding of what 4 content means in that sentence? 5 A Yes. 6 Q What is your understanding? 7 A This would be the pages, if it's a web 8 server, that the web server is delivering or other 9 kinds of media that the web server might be 10 delivering. 11 Q So is it fair to say that you understand 12 content can be either a web page or specific files 13 displayed on a web page? 14 A Those are examples. There's certainly more 15 things that could be web content. 16 Q And in the same sentence, do you have an 17 understanding of what web property means? 18 A I do. 19 Q What's your understanding? 20 A Here I would understand it as a website or 21 a location on the internet to go to or something 22 like that.	27 1 Q Is it fair to say that these sentences 2 describe the creation of a media property with 3 content? 4 A Again, these terms don't show up in the 5 claims. I didn't analyze these terms to the level 6 of being able to precisely characterize them to that 7 degree. It wasn't necessary for me to understand 8 the claims. Media property doesn't show up in the 9 claims, and so giving you a precise characterization 10 of this term is not something that I've prepared. 11 Q Content appears in the terms, though, 12 right -- in the claims, though, right? 13 A The claims use the term "web property 14 content." 15 Q When you were looking to understand what 16 web property content meant in the claims, did you 17 look for uses of "content" in the specification? 18 A I did. That didn't particularly inform me 19 beyond what was already the plain and ordinary 20 meaning of web property content to a person of 21 ordinary skill in the art. 22 Q Did you offer a construction for web
26 1 Q Is there a difference, in your view, 2 between the meaning of content and web property? 3 A As in the context of this patent, I haven't 4 analyzed those terms to the degree where I would 5 have an opinion about there being a difference 6 between them. These weren't, as I said, terms that 7 appeared in the claims and weren't the focus of my 8 analysis. 9 Q Okay. Let's look -- let's look at the 10 paragraph -- well, I'll have you review the 11 paragraphs starting at column 4, lines 35 through 12 column 5, lines 8, I believe. Those are two 13 paragraphs. 14 Why don't you go ahead and read those, and 15 then I'll ask you some questions. 16 A Okay. 17 Q Okay. The last two sentences of the second 18 paragraph that start on the top of column 5, and the 19 first sentence begins: "The media property 20 comprises..." 21 Do you see those sentences? 22 A I do.	28 1 property content? 2 A I did not. As I've said, every term in my 3 analysis was interpreted in terms of its plain and 4 ordinary meaning to a person of ordinary skill in 5 the art. 6 Q The paragraphs that we are looking at in 7 column 5, lines 1 through 8, what entity is doing 8 the creation? 9 A I'm sorry. Can you give me that question 10 again? 11 Q Yeah. 12 So the sentences we're looking at in column 13 5 and lines 1 through 8 discuss content creation. 14 Who is -- or which entity is creating the content in 15 this example? 16 A I'm sorry. Where -- where is the content 17 creation that you're referring to? 18 Q Okay. The sentences that we're looking at 19 describe media -- media property creation in lines 5 20 and 6. 21 Do you see that? 22 A Yes.

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29 1 Q And the content is part of the media 2 property, correct? 3 A Which content are you referring to? 4 Q The content discussed in line 3 of column 5 5. 6 A I don't necessarily read the content as 7 being part of the media property as described in 8 this sentence. It says that: "The media property 9 comprises a description of the relevant target 10 audience and the content carried by the media..." 11 Q So are you reading that sentence as meaning 12 the media property comprises a description of the 13 content, but not necessarily the content? 14 A It may -- it may say that. Again, 15 analyzing the specifics of this paragraph wasn't 16 necessary for me to understand the claims, which 17 were what drove my analysis. So as I sit here, I 18 don't have a definitive reading of whether 19 description applies to audience and content or just 20 audience. 21 Q Okay. Well, let's look at that last 22 sentence again, starting on line 5, and it says:	31 1 media property or film production or marketing, and 2 I didn't need to analyze the motivations for the 3 marketing team in understanding the claims of the 4 '898. So I don't have an answer for you on that. 5 Q You would agree with me, though, that 6 understanding the specification is important to 7 understanding the claims, correct? 8 A Absolutely, insofar as the specification 9 informs your understanding of the claims, and my 10 point is that these paragraphs are talking about 11 facts, entities that don't show up at all in the 12 claims. 13 Q Let's look at the next few paragraphs 14 starting in column 5, lines -- line 9 through line 15 37. Please read those three paragraphs. Let me 16 know when you're done. 17 A Okay. 18 Q Do you have an understanding of the process 19 that -- strike that. 20 Is it fair to say that these paragraphs 21 discuss the offering of an advertising opportunity 22 by the company that created the media property to an
30 1 "When the media property is created..." 2 Do you see that sentence? 3 A I do. 4 Q Do you have an understanding of what entity 5 is creating the media property? 6 A I haven't analyzed that. I would -- I 7 could go back and read this again to see if it's 8 possible to identify that, but as I sit here, this 9 is not, again, a fact that was necessary for me to 10 determine in order to interpret the claims. 11 Q Okay. Why don't you go back to the 12 beginning of the paragraphs that we just were 13 talking about -- it starts on line -- in column 4, 14 line 35 -- and read those and let me know if you 15 have an understanding of what entity is creating the 16 media property. 17 A So in column 4, line 66, I read that the 18 marketing team creates a media property. 19 Q Do you have an understanding, in the 20 context of the '898 patent, why a media property 21 would be created? 22 A Again, the claims of the '898 don't mention	32 1 advertiser? 2 A I don't see a reference to the company that 3 created the media property in these paragraphs. 4 Q Who is offering the advertising opportunity 5 in these paragraphs? 6 A I see, in lines 19 through 21, that: 7 "These impressions," which are ad impressions, 8 "create a commodity in the advertising community and 9 are packaged by the sales team to be sold in step 66 10 to an advertiser." 11 Q In the process discussed in these 12 paragraphs we're looking at, do you have an 13 understanding of what entity would set a number of 14 impressions and the cost per impression for the 15 advertising buy? 16 A Again, in this example, embodiment in the 17 specification, the -- the evidence that I see is 18 that a media buy is predetermined, has a 19 predetermined cost and that the advertiser 20 determines the cost of the impressions. Again, 21 these are -- these are features of the preferred 22 embodiment that don't limit, in any sense, the scope

33 1 of the claims. 2 Q Well, then, let's look at the paragraph at 3 column -- I apologize for the window washers behind 4 me. It's very distracting, of course -- right? -- 5 during a deposition. Let me start over. 6 Let's look at the paragraph at column 6, 7 lines 17 through 23. Why don't you go ahead and 8 read that and let me know when you're done. 9 A Okay. 10 Q Okay. And then I'll ask you the same 11 question I asked a moment ago. Which entity in this 12 embodiment sets the number of impressions and the 13 cost? 14 A So -- right. These sentences say that 15 the -- the cost of the advertiser is \$15 per 16 thousand impressions, so that immediately tells me 17 this is not limiting the claim to only embodiments 18 in which the cost is \$15 per thousand impressions, 19 but the specification then goes on to say that 20 despite having stated what this number is, the sales 21 team markets the impressions for a set number of 22 impressions and cost. So these two sentences are	35 1 A Yes, I do. 2 Q What is that understanding? 3 A Well, as claim 1 describes, when an 4 impression is valid, it's determined to be so based 5 on a predetermined impression tracking system. So 6 when the impression tracking system states that it's 7 valid, then the impression is valid. 8 Q And how would that determination occur? 9 A There's various ways it can occur. We have 10 an example here in this paragraph of one way. When 11 an ad counter receives and responds to an HTTP 12 request for a tracking asset from a client. That's 13 one example of how an impression can be determined 14 to be valid. 15 Q Are there other ways to determine that? 16 A There may be. I haven't considered all the 17 possible ways, but the prior art that I've analyzed 18 and that invalidates the patent meets this method. 19 Q In this paragraph, it talks about -- or it 20 states that: "The count must happen after the 21 initiation of retrieval of underlying page content." 22 Do you see that?
34 1 somewhat in conflict. 2 And then the next sentence says that a 3 media buy sets the terms and costs of the 4 advertising produced. So, again, it's not stated 5 who's setting the terms and costs. 6 So I don't have a crisp answer to your 7 question, and the fact is that answering this 8 question wasn't necessary for me to analyze the 9 claims and apply the claims to the prior art, which 10 was, of course, the focus of my analysis. 11 Q Okay. Let's go back a column to the bottom 12 of column 5, lines 59 through 67. Please go ahead 13 and read that paragraph and let me know when you're 14 done. 15 A Okay. 16 Q Do you have -- sorry. Back up. 17 In the first line of that paragraph, it 18 mentions "valid impression." 19 Do you see that? 20 A Yes. 21 Q Do you have an understanding of what valid 22 impression means in the context of the '898 patent?	36 1 A Yes. 2 Q To your understanding, is there a 3 difference between a web page and an underlying page 4 content? 5 A I haven't analyzed those two phrases to 6 determine whether there's a difference between them. 7 Q And to your understanding, what are the 8 mechanics of how this count happens? 9 A Sorry. What do you mean by "mechanics"? 10 Q What causes a count -- what causes a count 11 to be counted? 12 A In the -- in the example embodiment that 13 we're looking at, what causes a count to be counted 14 is when an ad counter receives and responds to an 15 HTTP request from a tracking asset from a client. 16 Excuse me a second. 17 Q Are you ready to go? 18 A I am, but if we can take a break in the 19 next few minutes, that would be great. 20 Q Sure. I have one more quick topic on the 21 spec here, and then we can take a break. 22 A Okay.

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37 1 Q Let's look at the paragraph at column 6, 2 lines 31 through 58. Just take a quick minute to 3 read through that, and I'll have a couple questions 4 for you. 5 A Okay. 6 Q Okay. On line 37 of column 6, it mentions 7 content channels. 8 Do you see that phrase? 9 A I do. 10 Q Do you have an understanding what content 11 channels means in the '898 patent? 12 A I didn't form a precise definition. Again, 13 this isn't a term that shows up in the claims. It 14 seems to be referring to different kinds of content. 15 Q And at line -- starting at line 52, the 16 right-hand side, there's a sentence that starts: 17 "As will be explained..." 18 Do you see that? 19 A Yes. 20 Q It says: "As will be explained in detail 21 below, an impression is counted each time a user is 22 exposed to the media content..."	39 1 (Reconvened at 11:16 a.m.) 2 BY MR. CREMEN: 3 Q Okay. Let's look at claim 1 now. That 4 starts at column 10, line 29. Why don't you go 5 ahead and read that claim, and then I'll ask some 6 questions about it. 7 A Okay. 8 Q You analyzed the scope of this claim and 9 compared it to the prior art in your declaration, 10 correct? 11 A That's right. 12 Q Okay. Let's look at the fourth claim 13 element that starts at line 45 of column 10, and it 14 starts: "Obtaining..." 15 Do you see that claim element? 16 A "Obtaining..."? 17 Q Yes. 18 In that claim element, there is the 19 phrase "predetermined number of impressions." 20 Do you see that phrase? 21 A Yes. 22 Q What is your understanding of predetermined
38 1 Do you see that phrase? 2 A Yes. 3 Q Do you have an understanding what "exposed 4 to" means in that phrase? 5 A I didn't form a sharp definition of 6 "exposed to." It's -- it appears to be referring to 7 the placing the media content in front of the user 8 somehow. 9 Q How is an impression counted based on 10 exposure, in your view? 11 A What's written here is that an impression 12 is counted each time a user is exposed to the media 13 content. 14 Q So what would cause the counting in that 15 instance? 16 A Well, the specification's not explaining 17 what would cause the counting in this setting, and 18 we discussed it earlier over in column 5, but this 19 part of the specification is not describing it. 20 MR. CREMEN: Okay. Let's go off the 21 record. 22 (Recessed at 11:06 a.m.)	40 1 number of impressions? 2 A For example, this would be a number of 3 impressions that would be determined by the 4 advertiser by, for example, specifying the number 5 through a graphical interface. 6 Q Okay. So this claim element requires that 7 the: "...selection of one or more...advertising buy 8 options...comprise at least one website of the 9 respective websites and a predetermined number of 10 impressions of the advertising material..."; is that 11 correct? 12 A Yes. 13 Q And in the limitation previous to the one 14 we're looking at, starting on lines -- on line 39 of 15 column 10, it requires that the graphical user 16 interface of the web page provide a plurality of 17 advertising buy options for selection by a given 18 client, correct? 19 A That's right. 20 Q So would not the obtaining claim limitation 21 that we were discussing require that the website of 22 the respective websites and the predetermined number

41 1 of impressions be presented to the client? 2 MR. MACE: Object to form. 3 THE WITNESS: I don't see any limitation in 4 the patent to that effect. 5 BY MR. CREMEN: 6 Q So you would agree, though, that the third 7 limitation, which begins on line 39 of column 10, 8 requires that the plurality of advertising buy 9 options be provided to the client, correct? 10 A That's right. A plurality of advertising 11 buy options for selection by the client are provided 12 to the client via the graphical user interface. 13 Q And would you agree that two instances of 14 advertising buy options in the obtaining claim limit 15 are a website and a number of impressions? 16 A The advertising buy options are provided in 17 the based step. 18 Q Yes. 19 A In the obtaining step, the advertising buy 20 options that the user has -- has completed include a 21 website and a predetermined number of impressions. 22 So the advertising buy options in the based step	43 1 section discussing this claim element, which is at 2 paragraph -- starts at paragraph 108 I believe. 3 A Okay. 4 Q In paragraph 109, am I correct in 5 understanding it is your opinion that the client 6 typing in a number of impressions in Nicholas is 7 what teaches this claim element? 8 A Yes, I address this in my report. So in 9 paragraph 106 I write that: "...limitation 1[d] 10 below specifies in more detail that the advertising 11 buy options comprise 'at least one website' and a 12 'predetermined number of impressions,' which are 13 provided through the two webpages shown in Figures 8 14 and 9 of Nicholas, as noted above and explained in 15 more detail below." 16 Figures 8 and 9 of Nicholas, in particular 17 Figure 8, shows the ability for the user to input a 18 number of impressions. 19 Q Is the ability for the user to enter a 20 number of impressions in Figure 8 of Nicholas the 21 only teaching of Nicholas that you're relying on for 22 your opinion that the recitation of a selection of a
42 1 don't necessarily include the website until we get 2 to the obtaining step, where the user has made a 3 selection, and the selection process, of course, 4 could include providing a website. 5 Q Okay. So in your opinion -- let me ask 6 it -- strike that. Sorry. 7 Is it fair to say that your opinion of the 8 obtaining claim element would include a client user 9 typing in a web page or typing in a predetermined 10 number of impressions? 11 A That's one of the possible embodiments that 12 could meet this claim. 13 Q And in your view, that would -- strike 14 that. Sorry. 15 In your opinion, how does the act of 16 selection include typing? 17 A Are you asking me whether a selection can 18 include typing? 19 Q Yes. 20 A Well, these are very broad concepts. I 21 mean, certainly, selection could include typing. 22 Q All right. Let's look at your declaration	44 1 predetermined number of impressions in the obtaining 2 step is obvious? 3 A It's one piece of evidence. I can review 4 my report to determine if there's other pieces. 5 It's my report. 6 Q As you sit here today, do you recall any 7 other teachings of Nicholas that you were relying on 8 to show that this claim limitation was obvious? 9 A Well, let me review the report then. 10 Those portions of Nicholas are the portions 11 that I rely on as teaching this element. 12 Q Okay. Later on in this element that we are 13 looking at, the obtaining element, the -- at line 14 49 -- no. Sorry -- 48, it uses the phrase "at least 15 one website of the respective websites." 16 Do you see that? 17 A Yes. 18 Q What part of Nicholas are you relying on to 19 render your opinion that that limitation's obvious? 20 A So I address this in my report. Paragraph 21 103, I write: "Figure 19 [sic] shows another" -- 22 I'm sorry -- "Figure 9 shows another exemplary web

45 1 page specifying further advertising purchasing 2 options, including by allowing the advertiser to 3 specify particular websites where the advertisement 4 will be presented." 5 And then later in paragraph 104, I write: 6 "Figure 9 shows a web page generated by ad selection 7 node 140 that provides a graphical user interface 8 for selecting, among other things, the websites and 9 network channels for presenting the advertisement." 10 Q What portion of Figure 9 shows the ability 11 to select a website? 12 A So in the upper right-hand side of Figure 13 9, we have the text that says: "Select 14 Channel/Website." There's then the ability to 15 select a website from a pull-down menu and to select 16 a channel from a pull-down menu. 17 Furthermore, on the left side of Figure 9, 18 we have the annotation: "Select Channels/Websites." 19 We have checkboxes next to "Sports," "Family," 20 "General Interests," which would be channels, and we 21 have checkboxes next to "test.com," which would be 22 websites.	47 1 limitation? 2 A Again, an example of web property content 3 would be a web page that's provided to the client. 4 A website would be a content provider node. 5 Q What is a content provider node? 6 A It's a system of some kind that serves the 7 content. 8 Q Okay. When we were discussing the 9 obtaining limitation a moment ago, didn't you tell 10 me that website could be a specific web page? 11 A Well, if I did in that context, that's not 12 the distinction that I would make in analyzing this 13 element. Here we have a website, which is a node. 14 Sometimes the term "website" is used to 15 refer to a collection of content, but the 16 distinction between the two here is that website is 17 a node and the content would be a web page delivered 18 to the client. 19 Q Okay. Well, let's go back to paragraph 103 20 of your declaration, that's Exhibit 1002, please. 21 A Okay. 22 Q A few minutes ago we were discussing Figure
46 1 Q Okay. Let's look at the next -- sorry. 2 Not the next -- the sixth limitation of claim 1 3 starting on line 55 of column 10, and it begins with 4 the text: "Based on obtaining the selection..." 5 Do you see that claim limitation? 6 A I do. 7 Q Do you agree that the limitation requires 8 that the advertising material be populated within 9 the web property content of a website? 10 A The language of the claim is that: "...the 11 populating comprises placing the advertising 12 material within web property content of the at least 13 one website." 14 Q What is web property content in the context 15 of this claim limitation? 16 A Well, an example of that, in the context of 17 this claim limitation, would be a web page served by 18 the content site. 19 Q What is the difference between web 20 property -- I'm sorry. Strike that. 21 What is the difference, if any, between web 22 property content and website in this claim	48 1 9. 2 Do you recall that? 3 A Yes. 4 Q And you pointed out that the website 5 selection could be done by using the drop-down menu 6 on the right-hand side or the box selection option 7 on the left-hand side. Is that a fair 8 characterization of your statement? 9 A Yeah. 10 Q So in this instance, you're selecting a 11 website that has a particular URL, right? 12 A It's being identified by a domain name, 13 test.com. 14 Q So are you selecting a web page here, or 15 are you selecting a node, as you mentioned a moment 16 ago? 17 A You mean in Figure 9? 18 Q Yes. 19 A So in Figure 9 you're specifying a website 20 as -- by referring to the name of the site, and 21 that's just a convenient way to specify website. 22 Q Well, test.com is a web page, correct? Or

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49 1 a test web page at least, right? 2 A It can be both a web page and it can be a 3 site. It depends on the context. There's 4 certainly -- I mean, this is a common situation in 5 the internet, where we specify a website by 6 referring to, let's say, the page that is the first 7 page that you access when you arrive at the site. 8 So it's just a convenient way of 9 identifying the site for the purposes of the 10 Nicholas reference. 11 Q Okay. But to understand whether the claims 12 are obvious, we have to interpret the terms of the 13 claims, correct? 14 A Yes. 15 Q And the term "website" appears in both the 16 obtaining and based on limitations we've been 17 discussing, correct? 18 A It does. 19 Q And when we discussed the obtaining claim 20 element, my recollection is you said that the 21 website in that instance is -- the selection of the 22 website in that instance would be shown by the	51 1 constitutes as a computer system is a node that 2 delivers content. This is completely consistent 3 between the two limitations. 4 Q Okay. But what is the purpose of claim 9 5 in Nicholas? What is the -- what is the input 6 selecting? 7 A Selecting a website. 8 Q To put an advertisement on, correct? 9 A That's right. 10 Q Okay. So isn't -- isn't the purpose of 11 claim 9 to select a particular web page to put an 12 advertisement on? 13 A No. 14 Q Why not? 15 A Because we're selecting a website. 16 Q Where does it say in Nicholas that that's a 17 website? 18 A In Nicholas? It appears multiple times on 19 the figure. 20 Q Okay. I see the figure. I'm sorry. 21 In Figure 9 of Nicholas, there's an ability 22 to enter hits, correct?
50 1 drop-down menu or the box-checking option, correct? 2 A That's right. 3 Q And in that instance, there is a specific 4 domain name, correct? 5 A That's right, and what I'm explaining is 6 that domain name is used to refer to the website. 7 The fact that it's also used for other purposes is 8 not really relevant to this analysis here. The name 9 test.com can be used to describe a website. 10 Q Well, wouldn't it be relevant to the 11 advertising selection which web page the 12 advertisement was going to be placed on? 13 A What -- where in the claim do you see a web 14 page being specified? 15 Q Well, I'm just trying to understand the -- 16 how you have interpreted the term "website" in your 17 analysis. So in Figure 9 of Nicholas, we've been 18 talking about the selection of a website by 19 pull-down menu or the box-checking, correct? 20 A That's right. It's not a complicated 21 concept. You specify a website by a convenient 22 name, like test.com, when in fact what the website	52 1 A You're referring to the box that's 2 labeled "Actual Hits"? 3 Q Yes. 4 A That's right. 5 Q And are those hits being measured on a 6 website or web page? 7 A I'm not sure what you mean by that 8 distinction. 9 Q Is there a distinction in your mind between 10 website and web page? 11 A Yes. 12 Q What's the distinction? 13 A Well, as we've discussed already, a website 14 refers to a node that delivers content. We often 15 specify the site or describe the site by the domain 16 name that you access when you visit the site. The 17 distinction is that's a site. 18 A web page is an individual web page that 19 could be one of the web pages delivered by the 20 server. That's the distinction. 21 Q How are hits counted? 22 A So here in Nicholas, the notion of a hit is

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53 1 essentially equivalent to an impression as the '898 2 describes it, and we've talked a lot about how the 3 '898 describes the counting of impressions. I can 4 explain for you where that is in Nicholas also, if 5 you'd like. 6 Q No. I think we discussed it earlier. 7 Does -- does a web page have to be rendered 8 before a hit is counted? 9 A It may or may not be. It depends on the 10 situation. 11 Q How can a hit be counted if the web page is 12 not rendered? 13 MR. MACE: Object to form. Incomplete 14 hypothetical. 15 THE WITNESS: What counting mechanism are 16 you asking about and what web page are you asking 17 about? 18 BY MR. CREMEN: 19 Q I'm -- sorry. I didn't mean to talk over 20 you. 21 I'm asking, in your knowledge, how a hit 22 can be counted without a web page being rendered.	55 1 separate and distinct processes. 2 Q Okay. If we look back at the element we 3 were discussing, which is the based on element, we 4 were talking about the phrase "within web property 5 content of the at least one website," correct? 6 A Okay. 7 Q Is there any overlap, in your mind, between 8 the terms "web property content" and "website"? 9 A What do you mean by "overlap"? 10 Q Do the scope of those terms overlap? 11 A Are you asking me is there some object that 12 could both be web property content and also a 13 website? 14 Q Yes, I am. That was much better phrasing. 15 Thank you. 16 A The website, as we've discussed, is a node 17 that delivers content. Web property content, an 18 example of that is a web page that's delivered from 19 the node. So I don't know whether that constitutes 20 overlap in your words or not. 21 Q But we were discussing previously that 22 website in the obtaining element could include a web
54 1 A Well, we've described a couple of times how 2 impressions can be tracked or considered valid. In 3 the case of Nicholas, I can explain. 4 Please give me a second. 5 So as I described in my report, the Error 6 reference discloses a technique for determining that 7 an impression is valid. In this case, this could be 8 used for counting hits. The method involves an 9 embedding a URL or a single pixel on a web page 10 that's delivered to a web browser. The image is not 11 meant to be viewed, will not likely be visible to 12 the user. But the browser receiving the page uses 13 the embedded URL to request the single-page image 14 from the server. 15 So if that process completes before the 16 browser has finished rendering the web page, then 17 that's a situation where the hit would be counted 18 before the page was rendered. 19 Q But in that instance, at least part of the 20 page will have had to have been sent to the client, 21 correct? 22 A Yes. Rendering and transmission are	56 1 page, correct? Am I wrong on that memory? 2 A In the obtaining element, the website 3 refers to the same thing it does in the based on 4 element. It's as I just said. 5 Q So it's a node? 6 A An example of a website would be a node 7 that provides content to a client. 8 Q Are there any other examples of website 9 that come to mind? 10 A There could be other examples. It wasn't 11 necessary for me to enumerate all the possibilities 12 or determine the metes and bound of the term. I -- 13 but it is certainly clear that the node 140 in 14 Nicholas is a website. 15 Q Are you relying on any other teaching of 16 Nicholas, other than the node we've been discussing, 17 to support your opinion that the at least one 18 website portion of the based on claim element is 19 obvious? 20 MR. MACE: Object to form. 21 THE WITNESS: I'm sorry. We've been 22 discussing multiple nodes here. I mentioned node

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57 1 140. There's also the server that delivers the 2 content. So which node should I be -- 3 BY MR. CREMEN: 4 Q Sorry. 5 A – responding to? 6 Q Yes. So let me ask it a different way. 7 What portions of Nicholas are you relying 8 on to teach the at least one website portion of the 9 based on obtaining claim limitation? 10 A As I say in paragraph 125: "Nicholas 11 discloses an advertisement delivery technique in 12 which an advertisement is delivered to a user when 13 the user accesses a website (...content provider 14 node 130)." 15 So I think I said 140 earlier, but I was 16 referring to this node 130 here. 17 Q So you are comparing node 130 to the at 18 least one website phrase in the based on claim 19 limitation, correct? 20 A As I say, the website in the based on 21 limitation is met by the content provider node 130 22 in Nicholas.	59 1 advertisement location on the webpage) by being 2 presented to the user when the website is 3 displayed," and this is illustrated in Nicholas 4 Figure 3 -- I'm sorry. Figure 3 of Nicholas's 5 incorporated '297 provision. 6 Q And is that the figure that's reproduced on 7 page 93 of your declaration? 8 A Yes, it is. 9 Q Can you tell me where in that figure the 10 advertisement and web property content are, in your 11 opinion? 12 A The web property content is the visible 13 part of the browsing – of the browser, and the 14 advertising material is the banner in the center, 15 which is an ad for Best Buy. 16 Q So it's your opinion that the web property 17 content is shown by the -- all of the contents of 18 the browser; is that right? 19 A Well, the advertising material has been 20 populated into the web property content, and 21 together they constitute everything that you see in 22 the -- in the browser.
58 1 Q Are there any other portions of Nicholas 2 that would teach the at least one website, in your 3 view? 4 A With respect to Nicholas, I don't identify 5 any other nodes that teach the -- the website of the 6 obtaining step. 7 Q And what portion of Nicholas are you 8 relying on to teach placing the advertising material 9 within web property content? 10 A As I write on page 91, in the technique of 11 Nicholas: "...HTML tags are embedded into the web 12 page served by the content site, that cause the web 13 browser via a URL to request the advertisement from 14 the ad selection node 140..." 15 And then later I write: "In plain English, 16 the passage above states that content provider node 17 130" -- which is the "at least one website" where 18 advertisements will be shown) provides HTML code 19 that causes the browser to issue a request for 20 advertising material from the ad selection 21 node...the advertising material will then be 22 populated within the web property (...banner	60 1 Q Let's look at the last limitation of 2 paragraph 1 -- sorry -- the last limitation of claim 3 1 that's in column 11, lines -- I guess it's 8 4 through 11 or so. It starts: "Based on 5 determining..." 6 Do you see that limitation? 7 A I do. 8 Q Is it your opinion that the phrase "number 9 of valid impressions, plural, includes a single 10 impression? 11 A It certainly could. 12 Q Why? 13 A Well, because one is a number. 14 Q Impressions is plural, though; is it not? 15 A Right. But that's just grammatically 16 necessary. If – one is a number that is a number 17 of valid impressions. 18 Q Okay. Let's go to your declaration 19 discussing this claim element. I think it's 20 paragraph -- I think it starts at paragraph 144. 21 A Okay. 22 Q In paragraph 144, you point out that the

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61 1 Mayadas reference teaches that each time an 2 advertisement is served, the advertiser's escrow 3 account is debited; is that correct? 4 A Mayadas discloses that each time the 5 advertisement is served, the advertiser's escrow 6 account is debited, but this is not the only way 7 that the system could work. 8 Q Okay. But I'm just asking right now what 9 Mayadas teaches. So you relied on that teaching to 10 support your opinion, correct? 11 A I relied on the combination of Mayadas and 12 Nicholas, and taking them in combination, it's clear 13 that they show that you could charge/performance a 14 debit, for example, after a larger number of 15 impressions. For example, Nicholas discloses 16 pricing impressions on the cost per thousand. 17 Q Okay. But the portion of Mayadas you've 18 cited talks about a one-to-one payment per -- 19 payment per advertisement service, correct? 20 A Mayadas uses that as an example. Of course 21 my analysis is based on the combination of Mayadas 22 and Nicholas, and they certainly teach that you	63 1 payment per advertisement service, and in paragraph 2 38 explain why that is important, correct? 3 A What Mayadas describes is payment per 4 impression, and it describes one advantage of that, 5 but those advantages would need to be weighed 6 against other advantages, and as I've described in 7 my report, there's significant advantages to 8 paying -- for all parties involved, there's 9 significant advantages to paying on a larger number 10 of impressions. 11 Q What reference teaches to pay on a larger 12 number of impressions? 13 A As I said, Nicholas describes the pricing 14 of impressions and cost per thousand. 15 Q Does Nicholas teach paying on a larger 16 number of impressions? 17 A So what Nicholas describes is pricing ads 18 on a cost-per-thousand impressions. Reading 19 Nicholas, a person of ordinary skill in the art 20 would certainly be directed to think about 21 transferring payment based on -- on thousand 22 number -- a thousand impressions at a time. So I
62 1 could -- you could debit based on, for example, a 2 thousand impressions or some other number of 3 impressions. 4 Q Okay. We'll come back to that in a second. 5 But let's look at Mayadas. That's Exhibit 1005, 6 please, and I'm going to direct you to paragraph 38, 7 please. Go ahead and read -- grab that reference 8 and read that paragraph, please. 9 A Okay. 10 Q Is it fair to say this paragraph of Mayadas 11 teaches that payment per advertisement service is 12 important to reduce risk? 13 A The paragraph describes the fact that if 14 advertisers are paid out each time an advertisement 15 is served, the advertiser has the opportunity to 16 recover unused funds. That doesn't mean that 17 it's -- that's not possible to pay users after 18 larger number of impressions, and clearly when 19 you've put Mayadas in context with Nicholas, it 20 becomes clear that they do teach that. 21 Q But you would agree that Mayadas teaches, 22 in the paragraph that you've cited in your report,	64 1 think it fairly discloses that. 2 Q Did you rely on any reference in support of 3 your opinion that the last claim element of claim 1 4 is obvious that teaches explicitly to pay on a 5 larger number of impressions? 6 MR. MACE: Object to form. 7 THE WITNESS: I'm sorry. You're asking me 8 if there were other references besides Nicholas and 9 Mayadas? 10 BY MR. CREMEN: 11 Q I'm asking if you relied on any reference 12 to support your opinion that teaches paying on a 13 larger number of impressions? 14 A Well, as I said, Mayadas and Nicholas 15 together fairly suggest to a person of ordinary 16 skill in the art the idea of paying on a thousand 17 impressions. That's certainly reasonable, given the 18 fact that ads are priced per thousand impressions. 19 Q Do either Mayadas or Nicholas explicitly 20 teach paying on a per-thousand-impression basis? 21 A As I say, that would be suggested fairly to 22 a person of ordinary skill in the art reading

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65 1 Nicholas and Mayadas. 2 Q Was pricing on a per-thousand basis for 3 impressions known before Mayadas was filed? 4 A I don't have detailed knowledge of the 5 advertising ecosystem at the time that Mayadas was 6 filed. 7 MR. MACE: I think we've been going about 8 another hour. I don't know how close you are to 9 wrapping up this module here. 10 MR. CREMEN: Yeah, I don't have a 11 tremendous amount more. So I think I can get us out 12 before lunch. So why don't you give me ten minutes 13 and then we can come back and I think we can wrap it 14 up. 15 All right. Let's go off the record. 16 (Recessed at 12:19 p.m.) 17 (Reconvened at 12:30 p.m.) 18 BY MR. CREMEN: 19 Q Okay. Dr. Crovella, just a few more 20 questions from my end I think. 21 Let's look at your Grounds 3 and 4, which 22 are at paragraph -- it starts at paragraph 184 in	67 1 A Yes. 2 Q Are those the two limitations of Claim 1 3 that you are adding teachings of Manowitz in for? 4 A The teachings of Manowitz, when added to 5 the Grounds 1 and 2, show that if the web property 6 content owner was a person or entity other than the 7 website owner or publisher, the claims would read on 8 this combination. 9 Q Does -- are you -- sorry. Strike that. 10 Are you relying on Manowitz to teach any 11 other feature of the challenged claims? 12 A Well, as I say in paragraph 185: "Manowitz 13 also [sic] discloses 'a model for sharing revenue 14 between a publisher of content and an author who 15 provides the content.'" 16 Q In paragraph 186 you have underlined: 17 "...within web property content..." not the entire 18 phrase, correct? 19 A You're talking about the sentence that 20 starts with: "Accordingly..."? 21 Q Yes. 22 A "Accordingly, under limitation 1[f], the
66 1 your declaration. Let me know when you get there. 2 A Okay. 3 Q Is it fair to say that you added Manowitz, 4 which is Exhibit 1015 to -- to Grounds 1 and 2 to 5 create Grounds 3 and 4, respectively? 6 A Right. Grounds 3 and 4 consist of Grounds 7 1 and 2 in further review of Manowitz. 8 Q What are the additional teachings -- sorry. 9 Strike that. 10 What are the teachings of Manowitz that 11 you're relying on to create Grounds 3 and 4? 12 A As I describe in paragraph 185: "Manowitz 13 discloses the ability of a website to publish web 14 content created by someone other than the owner of 15 the website, and the further ability to provide 16 advertising revenue to that content creator. 17 Manowitz discloses 'a model for sharing revenue 18 between a publisher of content and an author who 19 provides the content.'" 20 Q Okay. In paragraph 186, you mention -- you 21 identify two claim limitations, 1[f] and 1[k]. 22 You see those?	68 1 advertising material would have been populated 2 'within web property content of the at least one 3 website'..." and I've underlined "within web 4 property content" and "at least one website." 5 Q How does Manowitz teach providing the 6 advertising material within web property content? 7 A Well, what Manowitz teaches is that the web 8 property content could be originated by a person or 9 entity other than the website owner of a publisher, 10 and in the combination that includes Manowitz, then 11 the advertising material would still be, just as 12 before, included within the web property content, 13 but now it's just that the web property content has 14 been originated by person or entity other than the 15 website owner. 16 Q Okay. I guess what I'm trying to ask is: 17 Should "within" be underlined in this sentence? Is 18 it an extra underline, or are you just trying to -- 19 sorry. Let me strike that whole line of 20 questioning. 21 I guess my question is: Did you mean to 22 underline "within" in the sentence we're looking at?

69 1 A Well, you know, I don't know exactly what 2 you're reading into the fact that "within" is 3 underlined. I mean I'm emphasizing that the 4 advertising material would have been populated 5 within web property content and that, you know, the 6 web property content owner would have been -- under 7 the combination with Manowitz, would have been a 8 person or entity other than the website owner or 9 publisher. 10 Q Does Manowitz separately teach providing 11 the web property content within -- sorry. Strike 12 that. 13 Does Manowitz separately teach providing 14 the advertising material within the web property 15 content? 16 A I could look at Manowitz if you'd like, but 17 the advertising material is being provided, as 18 clearly disclosed in Nicholas and Mayadas, and 19 Manowitz is simply including the fact that the -- 20 the web property content owner could have been a 21 person other than the website owner. 22 So it doesn't change the fact -- the	71 1 element of the claims and wasn't -- it wasn't 2 necessary for me to analyze that in order to 3 determine that Nicholas and the other references 4 render the patent invalid for obviousness. 5 Q Okay. Thank you. I have no further 6 questions. I'll pass the witness. 7 MR. MACE: All right. Thanks. I don't 8 have any questions for Dr. Crovella. Dr. Crovella 9 reviews the right to review and sign. 10 We can go off the record. 11 THE COURT REPORTER: Before we do that, can 12 I get your order, Counsel? 13 Mr. Mace, are you purchasing a copy of the 14 transcript? 15 MR. MACE: Sure. Let's do it. I can't 16 remember when this is -- when's the filing deadline 17 for this? Do you remember? 18 MR. CREMEN: I think it's November 2nd. I 19 think it's the next Monday. 20 MR. MACE: Yes, I guess if we could just 21 get a copy of the final a couple days ahead of that 22 so we could review it for errata.
70 1 inclusion of Manowitz doesn't change the fact that 2 the advertising material is being populated within 3 the web property content. That's already happening 4 as a result of Nicholas and Mayadas. 5 Q Okay. So you're not -- strike that. 6 You're relying on Nicholas to teach the 7 within portion of this claim limitation and adding 8 on Manowitz to teach that the web property content 9 can be by a separate owner, correct? Is that right? 10 A I don't know, you know, what the 11 word "within" should be allocated to just all by 12 itself. I mean it's clear that Nicholas and Mayadas 13 together, they teach that the advertising content is 14 populated within the web property content, and that 15 doesn't change in the addition of Manowitz. It's -- 16 Manowitz just makes clear that the owner of the web 17 property content could be a person or entity other 18 than the website owner or publisher. 19 Q All right. And then does Nicholas teach a 20 method of raising funds for a project? 21 A I didn't analyze whether Nicholas taught a 22 method of raising funds. Raising funds wasn't an	72 1 THE COURT REPORTER: It's been ordered for 2 Wednesday for Mr. Cremen. 3 Do you want the same? 4 MR. MACE: Sure. Let's do that. Thank you 5 so much. 6 THE COURT REPORTER: Do you want a rough? 7 MR. MACE: No. 8 (Signature having not been waived, 9 the deposition of Mark Crovella, Ph.D. was concluded 10 at 12:43 p.m. EDT.) 11 12 13 14 15 16 17 18 19 20 21 22

Transcript of Mark Crovella, Ph.D.
Conducted on October 24, 2025

19 (73 to 76)

73 1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC 2 3 I, JOAN V. CAIN, court reporter and Notary 4 Public within and for the Commonwealth of Virginia 5 do hereby certify: 6 7 That Mark Crovella, Ph.D., the 8 witness whose deposition is hereinbefore set forth, 9 was duly sworn by me before the commencement of such 10 deposition and that such deposition was taken before 11 me and is a true record of the testimony given by 12 such witness. 13 14 I further certify that the adverse 15 party, GOOGLE LLC, was represented by counsel at the 16 deposition. 17 18 I further certify that the deposition of Mark 19 Crovella, Ph.D., occurred remotely over Zoom on 20 FRIDAY, October 24, 2025, commencing at 9:57 a.m. to 21 12:43 p.m. 22	
74 1 I further certify that I am not related to 2 any of the parties to this action by blood or 3 marriage, I am not employed by or an attorney to any 4 of the parties to this action, and that I am in no 5 way interested, financially or otherwise, in the 6 outcome of this matter. 7 8 IN WITNESS WHEREOF, I have hereunto set 9 my hand and affixed my notarial seal this 26th day 10 of October 2025. 11 12 My Commission Expires: May 31, 2029 13 14  15 _____ 16 NOTARY PUBLIC IN AND FOR 17 THE COMMONWEALTH OF VIRGINIA 18 19 20 21 22	

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a1	32:7, 35:11,	31:21, 32:4,	62:7, 71:21
4:12, 4:14	36:14, 45:6,	32:8, 32:15,	all
ability	58:14, 58:20,	34:4, 40:7,	17:3, 17:11,
43:17, 43:19,	59:15	40:10, 40:17,	23:17, 31:11,
45:10, 45:14,	added	41:8, 41:10,	35:16, 42:22,
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