

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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AMAZON.COM, INC.,  
Petitioner,

v.

LEXOS MEDIA IP, LLC,  
Patent Owner.

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Case IPR2023-01001  
U.S. Patent No. 6,118,449

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**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 6,118,449**

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## LIST OF EXHIBITS<sup>1</sup>

EX1001	U.S. Patent No. 5,995,102 entitled <i>Server System and Method for Modifying a Cursor Image</i> to James Samuel Rosen et al. (“the ’102 Patent”).
EX1002	U.S. Patent No. 6,118,449 entitled <i>Server System and Method for Modifying a Cursor Image</i> to James Samuel Rosen et al. (“the ’449 Patent”).
EX1003	Declaration of Dr. Craig Rosenberg.
EX1004	U.S. Patent No. 6,437,800 to Mark A. Malamud (“Malamud”).
EX1005	U.S. Patent No. 5,835,911 to Toru Nakagawa, et al. (“Nakagawa”).
EX1006	U.S. Patent No. 5,937,417 to Jakob Nielsen (“Nielsen”).
EX1007	<i>Lexos Media IP, LLC v. APMEX, Inc.</i> , No. 2:16-cv-00747-JRG-RSP (“ <i>APMEX</i> ”), Early Claim Construction Opinion and Order, Dkt. 86 (E.D. Tex., Mar. 16, 2017).
EX1008	<i>Lexos Media IP, LLC v. Amazon.com, Inc.</i> , No. 2:22-cv-00169-JRG, Parties’ Joint Claim Construction and Prehearing Statement, Dkt. 89 (E.D. Tex., May 16, 2023) (including the exhibits attached thereto).
EX1009	U.S. Patent No. 5,754,176 to Chris Crawford (“Crawford”).
EX1010	File History of the ’102 Patent.
EX1011	File History of the ’449 Patent.

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<sup>1</sup> Given the near complete overlap of the documents relied upon in this IPR Petition and those relied upon in the IPR Petition on the related ’102 Patent, Petitioner has included in this list and in all both Petitions all documents relied upon in the two IPR Petitions so that the Board need only refer to one set of Exhibits.



- EX1012 Curriculum Vitae of Dr. Craig Rosenberg.
- EX1013 Appendices to the Declaration of Dr. Craig Rosenberg.

## **I. INTRODUCTION**

Amazon.com, Inc. (“Petitioner”) requests *inter partes* review (“IPR”) of claims 1, 27, 38, and 53 (the “Challenged Claims”) of U.S. Patent No. 6,118,449 (“the ’449 Patent”) (EX1002) assigned to Lexos Media IP, LLC (“Patent Owner”).

5 This Petition demonstrates a reasonable likelihood of invalidity of the Challenged Claims. For the reasons set forth below, review should be instituted, and the Challenged Claims should be found unpatentable and canceled.

## **II. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8(B)**

### **A. Real Parties-in-Interest**

10 Pursuant to 37 C.F.R. § 42.8(b)(1), Petitioner identifies the following as the real parties-in-interest: Amazon.com, Inc.; Amazon.com Services LLC; and Amazon.com Sales, Inc.

### **B. Related Matters**

15 The ’449 Patent, U.S. Patent No. 5,995,102 (“the ’102 Patent”), and U.S. Patent No. 7,975,241 (“the ’241 Patent”) (collectively, “Lexos Patents”) are asserted against Petitioner in *Lexos Media IP, LLC v. Amazon.com, Inc.*, No. 2:22-cv-00169-JRG (E.D. Tex.) (the “District Court Litigation”).<sup>1</sup> Patent Owner served the complaint in the District Court Litigation on Petitioner on June 6, 2022. Petitioner

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<sup>1</sup> Lexos alleges in the District Court Litigation that it is the owner of the ’102 and ’449 Patents. Lexos is also recorded as the current assignee of those Patents.

is contemporaneously filing a petition for IPR of claim 72 of the '102 Patent, which is the parent to the '449 Patent.<sup>2</sup>

Lexos is currently asserting the '102 and '449 Patents in the following additional cases:

- 5        *Lexos Media IP, LLC v. N. Tool & Equip. Co.*, No. 2-22-cv-00355 (E.D. Tex.);
- Lexos Media IP, LLC. v. ABT Elecs., Inc.*, No. 1-22-cv-04878 (N.D. Ill.);
- Lexos Media IP, LLC v. Walmart Inc.*, No. 2-22-cv-00316 (E.D. Tex.);
- Lexos Media IP, LLC v. Overstock.com, Inc.*, No. 2-22-cv-02324 (D. Kan.);
- 10        *Lexos Media IP, LLC v. Nike, Inc.*, No. 2-22-cv-00311 (E.D. Tex.);
- Lexos Media IP, LLC v. MSC Industrial Direct Co.*, No. 3-22-cv-01736 (N.D. Tex.);
- Lexos Media IP, LLC v. Gap Inc.*, No. 2-22-cv-00299 (E.D. Tex.);
- Lexos Media IP, LLC v. Ultra Beauty, Inc.*, 2-22-cv-00292 (E.D. Tex.);
- 15        *Lexos Media IP, LLC v. CDW LLC*, No. 2-22-cv-00275 (E.D. Tex.);
- Lexos Media IP, LLC v. Office Depot, LLC*, No. 2-22-cv-00273 (E.D. Tex.);
- Lexos Media IP, LLC v. eBay Inc.*, No. 6-22-cv-00648 (W.D. Tex.); and
- Lexos Media IP, LLC v. Target Corp.*, No. 2-22-cv-00175 (E.D. Tex.).

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<sup>2</sup> For consistency and ease of reference for the Board across the two related IPR Petitions, all citations to the specification herein will be made to the column and line numbers of the '102 Patent (EX1001).

Additionally, Lexos previously asserted the '102 Patent and/or the '449 Patent or those patents were at issue in the following cases, all of which are now terminated:

5        *Lexos Media IP, LLC v. Ace Hardware Corp.*, No. 2-22-cv-00304 (E.D. Tex.);

*Lexos Media IP, LLC v. The TJX Cos.*, No. 2-22-cv-00285 (E.D. Tex.);

*Lexos Media IP, LLC v. La-Z-Boy Inc.*, No. 6-21-cv-00205 (W.D. Tex.);

*Lexos Media IP, LLC v. ASICS Am. Corp.*, No. 6-21-cv-00117 (W.D. Tex.);

10       *Lexos Media IP, LLC v. Luxottica Grp. SpA*, No. 6-21-cv-00096 (W.D. Tex.);

*Lexos Media IP, LLC v. Gift Svcs., Inc.*, No. 6-20-cv-01156 (W.D. Tex.);

*Lexos Media IP, LLC v. Urban Outfitters, Inc.*, No. 6-20-cv-01142 (W.D. Tex.);

*Ralph Lauren Corp. v. Hirshfeld*, No. 20-1862 (Fed. Cir.);

15       *Lexos Media IP, LLC v. Jos A Bank Clothiers, Inc.*, No. 1-17-cv-01317 (D. Del.);

*Lexos Media IP, LLC v. Oriental Trading Co.*, No. 1-17-cv-01318 (D. Del.);

*Lexos Media IP, LLC v. Ralph Lauren Corp.*, No. 1-17-cv-01319 (D. Del.);

*Lexos Media IP, LLC v. TJX Cos.*, No. 1-17-cv-01320 (D. Del.);

20       *Lexos Media IP, LLC v. Williams-Sonoma, Inc.*, No. 1-17-cv-01321 (D. Del.);

*Lexos Media IP, LLC v. AmeriMark Direct, LLC*, No. 2-17-cv-00372 (E.D. Tex.);

25       *Lexos Media IP, LLC v. Boscov's Dep't Store, LLC*, No. 2-17-cv-00373 (E.D. Tex.);

*Lexos Media IP, LLC v. APMEX, Inc.*, No. 2-16-cv-00747 (E.D. Tex.);

*Lexos Media IP, LLC v. Costco Wholesale Corp.*, No. 2-16-cv-00748 (E.D. Tex.);

5 *Lexos Media IP, LLC v. Musician's Friend, Inc.*, No. 2-16-cv-00749 (E.D. Tex.);

*Lexos Media IP, LLC v. Nordstrom, Inc.*, No. 2-16-cv-00750 (E.D. Tex.);

*Lexos Media IP, LLC v. Saks Inc.*, No. 2-16-cv-00751 (E.D. Tex.);

*Lexos Media IP, LLC v. Victoria's Secret Stores Brand Mgmt., Inc.*, No. 2-16-cv-00752 (E.D. Tex.);

10 *Lexos Media IP, LLC v. Recreational Equip., Inc.*, No. 2-15-cv-02107 (E.D. Tex.);

*Lexos Media IP, LLC v. Sears Brands, LLC*, No. 2-15-cv-02098 (E.D. Tex.);

*Lexos Media IP, LLC v. The Neiman Marcus Group, LLC*, No. 2-15-cv-02100 (E.D. Tex.);

15 *Lexos Media IP, LLC v. Express, LLC*, No. 2-15-cv-02073 (E.D. Tex.);

*Lexos Media IP, LLC v. Avon Prods., Inc.*, No. 2-15-cv-02052 (E.D. Tex.);

*Lexos Media IP, LLC v. The Home Depot USA, Inc.*, No. 2-15-cv-02051 (E.D. Tex.);

*Lexos Media, Inc. v. Zynga, Inc.*, No. 1-12-cv-07994 (S.D.N.Y.);

20 *Lexos Media, Inc. v. Zynga, Inc.*, No. 2-12-cv-00395 (M.D. Fla.); and

*Zynga Inc. v. Lexos Media, Inc.*, No. 5-12-cv-01952 (N.D. Cal.).

In one of those cases in the Eastern District of Texas, the court construed a single claim term as discussed in the claim construction section below.

Ralph Lauren Corporation (“RLC”) previously petitioned for *inter partes* review of claims 1-3, 5-7, 12-15, 27-29, 31-33, 38-41, 53-56, 58-63, 72-75, and 77-82 of the ’449 Patent (IPR2018-01755), and review was instituted. In a Final Written Decision (“FWD”), the Board held that RLC (1) had demonstrated that claims 27, 33, 40-41, 72, and 81-82 of the ’449 Patent were unpatentable as obvious, but (2) had not demonstrated unpatentability of claims 1-3, 5-7, 12-15, 28-29, 31-32, 38-39, 53-56, 58-63, 73-75, and 77-80. *Ralph Lauren Corp. v. Lexos Media IP, LLC*, IPR2018-01755, Paper 22 at 44-45 (PTAB Mar. 25, 2020). RLC appealed, and the Federal Circuit affirmed the Board’s decisions. *Ralph Lauren Corp. v. Hirshfeld*, 852 Fed. App’x 540 (Fed. Cir. 2021).

**C. Counsel and Service Information**

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Powers of attorney pursuant to 37 C.F.R. § 42.10(b) accompany this Petition.

Petitioner consents to electronic service at the following address:

[Shvodian-ptab@perkinscoie.com](mailto:Shvodian-ptab@perkinscoie.com).

### III. PAYMENT OF FEES

The PTO is authorized to charge any fees due to Deposit Account No. 50-0665.

### IV. GROUNDS FOR STANDING

5        Petitioner certifies that the '449 Patent is available for review, and Petitioner is not barred/estopped from requesting review on the grounds herein.

### V. PRECISE RELIEF REQUESTED

#### A. Challenged Claims

10        Petitioner requests review of the Challenged Claims and cancellation of those claims as unpatentable.

#### B. Statutory Grounds of Challenge

The Challenged Claims should be canceled for the following grounds:

**Ground 1:** Claims 1, 27, and 53 are obvious under pre-AIA 35 U.S.C. § 103 over U.S. Patent No. 6,437,800 ("Malamud").

15        **Ground 2:** Claims 1, 27, and 53 are obvious under pre-AIA 35 U.S.C. § 103 over Malamud and U.S. Patent No. 5,835,911 ("Nakagawa").

**Ground 3:** Claims 1, 27, 38, and 53 are obvious under pre-AIA 35 U.S.C. § 103 over U.S. Patent No. 5,937,417 ("Nielsen") and Malamud.

20        For this proceeding only, Petitioner assumes the earliest effective filing date of the '449 Patent is June 25, 1997.

Malamud issued on August 20, 2002 from Application No. 08/329,724, which was filed on October 26, 1994, as a continuation of Application No. 08/054,564, filed on April 28, 1993. Nakagawa issued on November 10, 1998 from Application No. 517,133, which was filed on August 21, 1995, as a continuation-in-part of Application No. 385,460, filed on February 8, 1995. Nielsen issued on August 10, 1999 from Application No. 08/643,893, which was filed on May 7, 1996. Therefore, Malamud, Nakagawa, and Nielsen each qualify as prior art under at least § 102(e) (pre-AIA).

As addressed in Section X(B) below, none of the grounds presented herein have been previously considered.

## **VI. LEVEL OF ORDINARY SKILL**

A person of ordinary skill in the art (“POSITA”) at the claimed priority date would have had experience in the fields of human factors engineering or human computer interaction. (EX1003 at ¶¶31-35.) The POSITA would have at least a bachelor’s degree in computer science, computer engineering, human factors engineering, or a related field and would have had at least two years of relevant work experience in the fields of UI design, or equivalent experience.<sup>3</sup> (*Id.*)

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<sup>3</sup> Dr. Rosenberg qualified as a POSITA by the asserted priority date, and he remains qualified to testify to what a POSITA would have understood at the time of the claimed invention. (EX1003 at ¶36.)



## **VII. OVERVIEW OF THE '449 PATENT**

### **A. Priority Date of the '449 Patent**

The '449 Patent issued on September 12, 2000 from U.S. Patent Application No. 09/400,038, which was filed on September 21, 1999. The '449 Patent claims  
5 to be a continuation of U.S. Patent Application No. 08/882,580, which was filed on June 25, 1997 and issued as the '102 Patent. Therefore, the earliest possible priority date for the '449 Patent is June 25, 1997.

### **B. State of the Art Before the Application for the '449 Patent**

#### **1. Cursors in Graphical User Interfaces**

10 A graphical user interface ("GUI") is one form of human-computer interface that was in widespread use by 1997. (EX1003 at ¶40.) Through the use of GUIs, users were able to interact with displayed icons, objects, or text using a pointing device, such as a mouse, rollerball, or touchpad. (*Id.*)

Computer interface devices, including pointing devices and display screens,  
15 generally have "drivers," which are programs dedicated to communicating between the device and other software like application programs or the operating system ("OS"). (*Id.* at ¶¶43-44.) The OS manages computer hardware and software resources, and it can be an intermediary between application programs and hardware drivers. (*Id.*) For example, a "display driver" can accept commands from the OS

and generate signals to the display device to render the desired text or image on the display device's screen. (*Id.*)

When a user moves a pointing device, such as a mouse, an image called a "cursor" moves correspondingly onscreen. (*Id.*) The cursor image is controlled by the OS or an application to indicate the cursor's position on the screen. (*Id.*) Cur-  
5 sor images generally include a single pixel, called the "hotspot," that identifies the location on the screen where input from a user would have an effect. (*Id.* at ¶49.)

Applications and code other than the OS can affect the cursor's appearance. (*Id.* at ¶45.) For example, an application may modify the cursor image by sending  
10 data and/or commands to the OS. (*Id.*)

While OSs have for decades provided standard images for cursors, such as an arrow, they also allowed applications to customize the cursor appearance. (*Id.* at ¶¶51-54.) Because cursors were a core part of the user experience, and the user's attention was often focused on or near the cursor onscreen, computer designers  
15 commonly placed additional information around the cursor. (*Id.* at ¶¶59-60.) For example, U.S. Patent No. 5,754,176 to Crawford (filed on October 2, 1995) describes a "tooltip" system built into Microsoft Windows to display help information when a user held the cursor over an object displayed on the screen. (EX1009 at 2:28-37.)

## 2. Client/Server Systems

The client/server architecture is a fundamental system design that has been well-known for decades. (EX1003 at ¶¶61-63; EX1005 at 3:1-5.) Client/server systems can function in many ways. For example, a client can download an application from a server and run that application locally. (EX1003 at ¶64.) Alternatively, applications can be run on a remote server, with display information sent to the client computer for display to a user. (*Id.*)

Client/server systems have long been a critical part of the internet, such as where web browsers allow users' computing devices (*i.e.*, "clients") to download web pages from servers. (*Id.* at ¶65.) The well-known use of custom cursors and the equally well-known use of client/server systems were frequently combined such that an application that modified a cursor image could be downloaded from a server. (*Id.*) This approach was built into the widely used "X Windows" system, first released in 1986. (*Id.* at ¶¶52-54.)

### C. Summary of the '449 Patent

Consistent with the foregoing description of the state of the art in June 1997, the '449 Patent admits that it was not new for applications to change the shape of cursor images. (EX1001 at 3:36-44.) The '449 Patent, however, asserts that those changes generally reflected "an internal state of the computer or the present function within an application." (*Id.* at 3:44-46.) The '449 Patent asserts that this was

deficient because the cursor could not convey “advertising” or “change to correspond with on-line content being displayed on the screen.” (*Id.* at 3:36-50, 2:27-32.)

The '449 Patent purports to address those deficiencies through “[a] system for modifying a cursor image ... to a specific image having a desired shape and appearance” (*id.* at Abstract) where the specific image represents advertising or relates to content displayed on the screen. (*Id.* at 2:44-47, 2:58-3:3, 3:64-4:3, 7:7-9.) For example, the patent discloses that the cursor modification can be the rendering of the cursor as a baseball bat on a sports website (*id.* at 17:33-34) or as a pink cursor on a website about the Pink Panther (*id.* at 17:34-35).

Figure 8 of the '449 Patent, annotated below, shows an example where the cursor is modified from a standard arrow into the “specific image” of a bottle (annotated with the red circle) to advertise a cola drink:

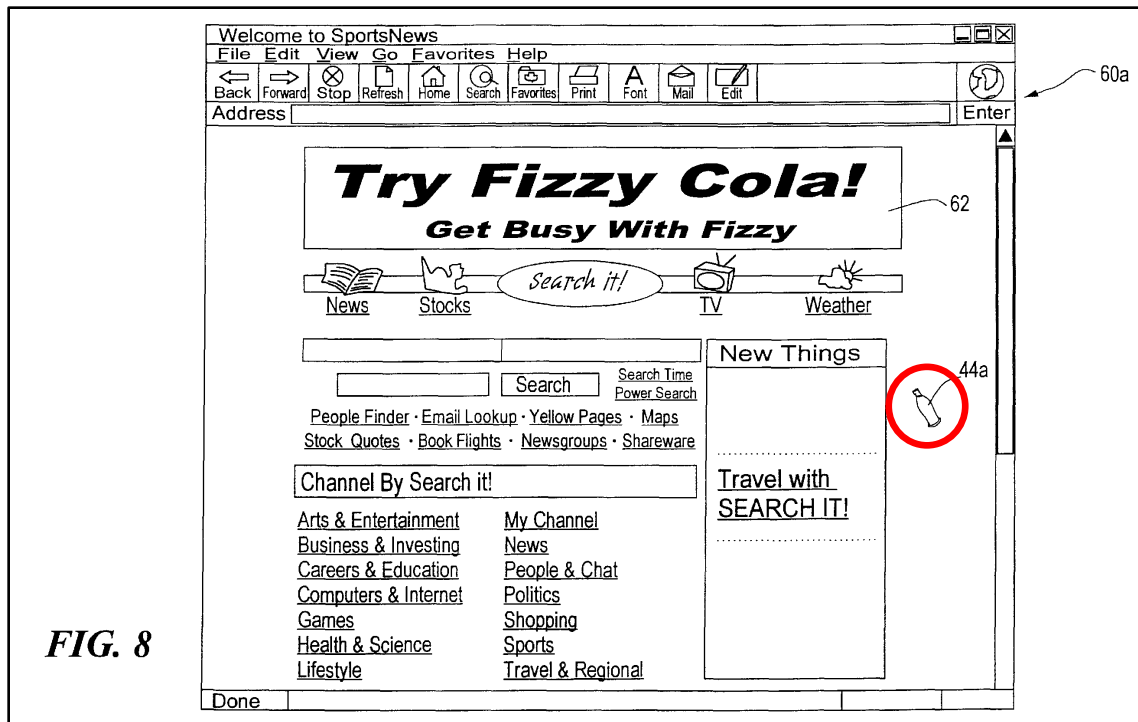


Figure 8 (annotated).

## VIII. PROPOSED CLAIM CONSTRUCTIONS

Under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc),  
5 claim terms are typically given their ordinary and customary meanings as understood by a POSITA at the time of the invention based on the claim language, specification, and the prosecution history. *Id.* at 1312-16. The Board, however, construes claim terms only to the extent necessary to resolve the present controversy. *Toyota Motor Corp. v. Cellport Sys., Inc.*, IPR2015-00633, Paper No. 11 at 16  
10 (PTAB Aug. 14, 2015) (citation omitted). Aside from the previously construed claim term addressed below, Petitioner believes that no constructions of any other

claim terms are necessary.<sup>4</sup> *Ralph Lauren Corp. v. Lexos Media IP, LLC*, IPR2018-01755, Paper No. 22 at 12 (finding no claim terms of the '449 Patent needed construction).

While the parties have agreed to the construction of some claim terms and  
5 have proposed competing constructions for some claim terms in the pending District Court Litigation (EX1008), Petitioner contends that those proposed constructions do not affect this Petition because the limitations of the Challenged Claims are disclosed in, or rendered obvious, by the prior art under both parties' proposed constructions. The invalidity analysis set forth below would not differ under either  
10 parties' proposed constructions.

#### **A. Claim Term Previously Construed**

Lexos asserted the '449 Patent in *Lexos Media IP, LLC v. APMEX, Inc.*, No. 2:16-cv-00747-JRG-RSP (E.D. Tex.) ("*APMEX*"), and the district court construed the term "said specific image including content corresponding to at least a portion  
15 of said information to be displayed on said display of said user's terminal" to mean

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<sup>4</sup> Petitioner reserves all rights to raise claim construction and other arguments in district court as relevant to that proceeding. *See, e.g., Target Corp. v. Proxicom Wireless, LLC*, IPR2020-00904, Paper 11 at 11-13 (PTAB Nov. 10, 2020). Infringement issues in the litigation may raise controversies that are not presented here.

“an image representative of at least a portion of the subject or topic being displayed on the screen.” (EX1007 at 12-13). Petitioner and Patent Owner agree with that construction (EX1008 at 3), and that construction should be applied here.<sup>5</sup>

5           That construction does not change the invalidity analysis for any of the grounds presented here because, as discussed below, Malamud’s preview cursor contains content representative of an object displayed on the user’s screen. Additionally, Nielsen’s tooltips contain content representative of an object displayed on the user’s screen.

## 10   **IX. DETAILED EXPLANATION OF GROUNDS**

### **A. Overview of Prior Art References**

#### **1. Malamud (EX1004)**

          Malamud relates to “information cursors” for use in an OS or in application programs. (EX1004 at Abstract.) “[An] information cursor includes a pointing  
15   portion to point to objects displayed on a video display and an information portion to display information about an object to which the pointing portion points.” (*Id.*) One type of information cursor is a “preview cursor,” which is shown in Malamud’s Figure 3, reproduced below:

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<sup>5</sup> No other claim terms have been previously construed.

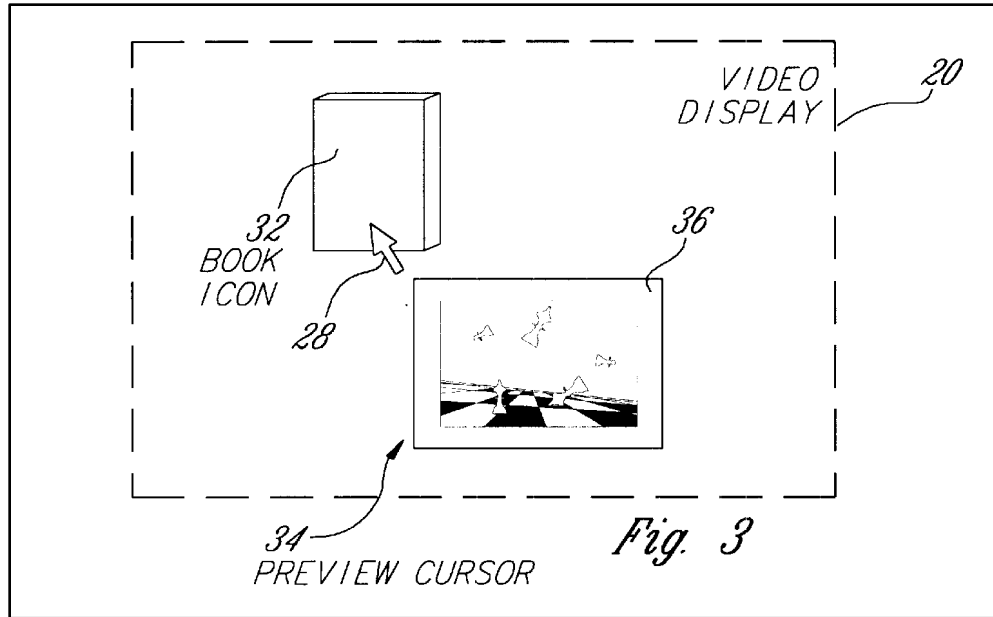
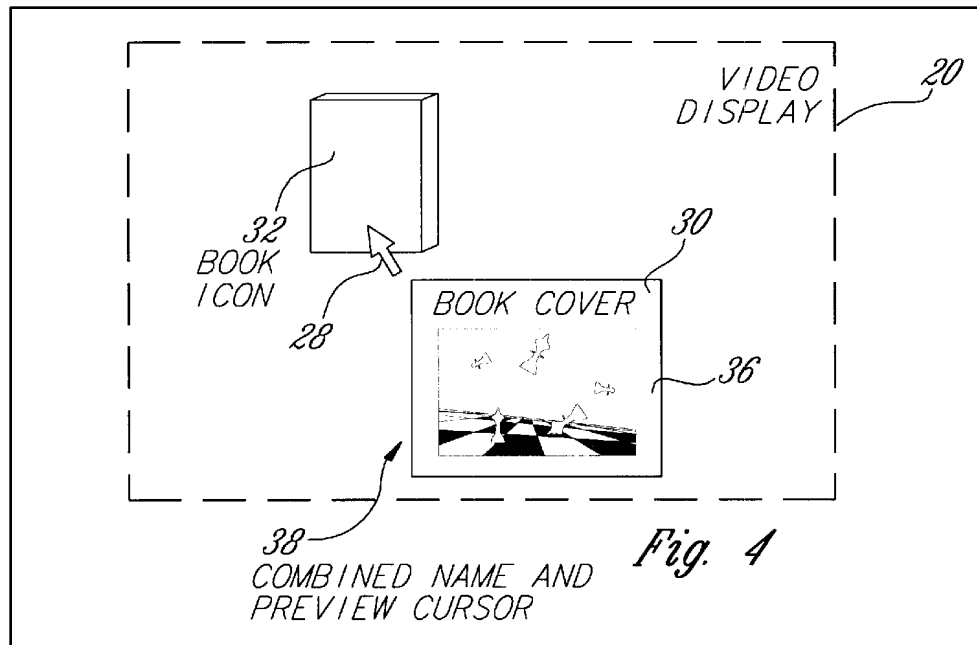


Figure 3 illustrates a preview cursor 34 pointing to book icon 32. (*Id.* at 3:59-65.) The preview cursor 34 includes pointing portion 28 in the shape of an arrow pointing to book icon 32 (*id.* at 3:65–68), and it includes preview portion 36, which holds a preview of the contents of the object to which the pointing portion is pointing (*id.* at 3:61-4:3).

Figure 4 illustrates another type of information cursor, a “combined name and preview cursor” 38 pointing to book icon 32. (*Id.* at 4:4-18.)





Like a preview cursor, a combined name and preview cursor include a pointing portion 28 in the shape of an arrow and a preview portion 36, which holds a preview of the contents of the object the cursor is pointing to. (*Id.* at 4:8-9, 4:14-15.)

5 But the combined name and preview cursor also includes a name box in which the name of the object being pointed to can be displayed. (*Id.* at 4:10-13.)

To implement the display of information cursors, the OS of the computer maintains a message queue for each program that generates windows, and when a mouse event occurs, such as movement of the mouse or a mouse click, a message  
10 from the OS is placed into the queue for the program. (*Id.* at 4:56-5:9.) Malamud teaches that the windows procedure for the application program then determines if there is a named entity at the location pointed to by the cursor. (*Id.* at 5:28-30.) If not, either a conventional cursor is displayed, or an information cursor is displayed

with the information portion blank. (*Id.* at 5:39-45.) If there is a named entity at that location, then the windows procedure for the application program responds by passing a message to the OS that indicates the type of information cursor to be displayed and information to be included in the cursor display (*e.g.*, a text string for a name box and/or a pointer to graphical information for a preview cursor). (*Id.* at 5:36-45, 5:47–6:16.) The application program can also control whether the use of information cursors is enabled. (*Id.* at 5:66-6:17.)

## 2. Nakagawa (EX1005)

Nakagawa relates to a system and method for software distribution and maintenance through which “a software vendor can provide a number of users with software over a network.” (EX1005 at Title, Abstract, 1:13-16.) In the “Background of the Invention” section, Nakagawa explains that by August 1995, there was “well-known prior art to distribute and obtain software update information” for a user’s computer from a server. (*Id.* at 1:21-22, 1:34-37.) Nakagawa explains that such systems could be used by a vendor to distribute software to customers over a network, or that a user could obtain software over a network by accessing a software library stored remotely for download. (*Id.* at 1:34-41, 1:46-50.) Nakagawa further explains that an executable program can be compiled on a vendor’s computer and then downloaded by the user’s computer, or the source file for a program can be downloaded and then compiled into an executable program on the user’s

er's computer. (*Id.* at 1:66-2:6.) Nakagawa says that these methods are carried out in what was known as a "client/server method." (*Id.* at 3:1-5.)

### 3. Nielsen (EX1006)

Nielsen relates to a system and method for displaying "tooltips" on web pages. (EX1006 at Abstract, 1:1-6, 1:51-54.) In the "Background of the Invention" section, Nielsen explains that a user views a web page through a browser program. (*Id.* at 1:19-20.) Through the browser program, the user submits a request to a web server for a web page that is then transmitted to the user's computer. (*Id.* at 1:19-28.) Nielsen explains that information displayed on web pages might be compact, such as abbreviations, and therefore there was a need to present users with additional information about the things displayed on web pages. (*Id.* at 1:29-48.)

Nielsen teaches a solution to this problem through an extension to HTML (HyperText Markup Language) that permits web page designers to include "tooltips" for web pages. (*Id.* at 1:51-62.) As Nielsen explains, "tooltips" "are text areas that display automatically when the user places the cursor over predetermined text on a display device." (*Id.* at 1:54-56.) The use of tooltips was already known in the art (*see, e.g.*, EX1009 at 1:43-56 (describing tooltips in Windows systems)), but Nielsen teaches extending the use of tooltips to web pages and extending the use beyond just text, such as displaying a graphical image as a tooltip

when the cursor is placed over another graphical object displayed on the screen.

(*See, e.g.*, EX1006 at 1:51-62, 3:35-41, 3:61-4:4.)

Nielsen further teaches that a web page can specify the use of a tooltip through text included in the HTML code. The first part of the HTML code identifies that a tooltip is being used and identifies the tooltip that will be displayed. (*Id.* at 3:52-56.) For example, <TOOLTIP TXT = “London Heathrow”> would cause the text “London Heathrow” to be displayed when the tooltip is invoked by placing the cursor over the text or object that would trigger the tooltip display. (*Id.* at 3:52-56, 5:3-8, Fig. 5(a).) But the displayed tooltip is not limited to text, as an “icon or other illustrations” can also be displayed as the tooltip. (*Id.* at 3:61-63.)

The next part of the HTML code identifies the information that the cursor must point to on the user’s display to trigger the display of the tooltip. (*Id.* at 3:64-4:4.) In the example shown in Fig. 5(a), this information is “LHR,” which indicates that when the cursor hovers over the text “LHR” displayed on the screen, the tooltip will be invoked, and “London Heathrow” will be displayed. (*Id.* at 5:3-8; Fig. 5(a); Fig. 4.) Nielsen further teaches that information displayed on the user screen that triggers the display of the tooltip is not limited to text, but can be “any information that has a visual appearance on a display device 160 including images, literal character strings and, animations ....” (*Id.* at 3:65-4:2.)

Nielsen teaches that the tooltip is preferably displayed in proximity to the object on the user's display screen that triggered the display of the tooltip when the cursor was hovered over it. (*Id.* at 7:9-14, 7:19-32.)

## **B. Motivation to Combine References**

### **1. Legal Standard**

A patent claim is invalid as obvious if the differences between the claimed subject matter and the prior art are such that the claimed subject matter as a whole would have been obvious to a POSITA at the time of the invention. 35 U.S.C. § 103. Obviousness is a question of law based on underlying facts, including: (1) "the scope and content of the prior art," (2) the "differences between the prior art and the claims at issue," (3) "the level of ordinary skill in the pertinent art," and (4) any "secondary considerations," or objective indicia, of nonobviousness. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

The Supreme Court has given examples of motivations for combining or modifying prior art references, including "interrelated teachings of multiple patents," and the "background knowledge," "creativity," and "ordinary skill and common sense." *KSR*, 550 U.S. at 418-21. The Court has further recognized that a combination may be "obvious to try" if "[w]hen 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 [in the art] has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.” *Id.* at 421. The Federal Circuit has provided similar guidance, noting that

5 “[t]he reason, suggestion, or motivation to combine may be found explicitly or implicitly: 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved.” *Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329

10 (Fed. Cir. 2009).

A POSITA, who is “a person of ordinary creativity, not an automaton,” would have been motivated to combine the teachings in Malamud, Nakagawa, and Nielsen in the manner claimed by the Challenged Claims. *ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1219 (Fed. Cir. 2016) (citing *KSR*, 550 U.S. at 421); *Belden*

15 *Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1074-75 (Fed. Cir. 2015).

## **2. Motivation to Download Malamud’s Application Program from a Server, and the Obviousness of Doing So**

Malamud describes an application program that runs on a user’s computer and modifies a cursor image when the cursor points to an object on the display,

20 where the modified cursor image is related to the object to which the cursor points. (EX1004 at Abstract, 1:35-42.) Malamud does not describe how the user’s com-

puter obtains the application program, but it was well-known in the art that application programs could be downloaded over a network from a server, and it would have been common sense to do so given the reduction in distribution costs and increased speed by which users could obtain the latest version of an application program. (EX1003 at ¶¶88-93.)

There were a finite number of ways for a user computer to obtain an application program, such as pre-installation on a computer; copying the application program to the user's computer from a floppy disc, CD ROM, or an external drive; or copying it to the user's computer from a server over a network. (*Id.* at ¶92.) Any application program that used Malamud's cursor-modification method that did not come pre-installed on a computer at the time of purchase would have needed to be distributed using one of the other methods. (*Id.*) And distribution over a network would be faster and less expensive than distribution via floppy disc, CD ROM, or other external media. A POSITA would therefore have been motivated to distribute Malamud's application program from a server to user computers over a network because that would lower costs by eliminating the need to produce and distribute copies of the program on floppy discs or CD ROMS, and it would increase the speed at which users could obtain the program. (*Id.*) Additionally, by distributing the application program from a server over a network, users could receive the most up-to-date version of the program, while a program distributed by floppy disc

or CD ROM could become outdated upon the release of a newer version of the program before the user even received the floppy disc or CD ROM. (*Id.*)

A POSITA thus would have been motivated to distribute Malamud's application program over a network using a server, and it would have been well within the technical skill of a POSITA to do so with a high likelihood of success. (*Id.* at ¶93.) This distribution of Malamud's application program from a server would not have been innovative, but rather the result of ordinary skill and common sense. (*Id.*)

### 3. Motivation to Combine the Teachings of Malamud and Nakagawa, and the Obviousness of that Combination

As disclosed in Nakagawa, software applications could be distributed by a vendor to individuals that had purchased the software, or the software could be made available in a software library on a network server from which users could request and download application programs. (EX1005 at 1:34-37, 1:46-49, 1:52-54, 3:1-5.) For the reasons discussed in the preceding section, a POSITA would have been motivated to distribute application programs, including Malamud's application program containing the cursor-modification functionality, from a server to users over a network as disclosed in Nakagawa. (EX1003 at ¶¶115-117.)

A POSITA therefore would have been motivated to combine the teachings of Malamud and Nakagawa to distribute Malamud's application program to users over a network from a server, and it would have been well within the technical



skill of a POSITA to do so with a high likelihood of success. (*Id.*) This combination of Malamud with the teachings of Nakagawa regarding software distribution from a server would not have been innovative, but rather the result of ordinary skill and common sense. (*Id.*)

5                   **4. Motivation to Combine the Teachings of Nielsen and Malamud, and the Obviousness of that Combination**

Nielsen teaches a system and method for displaying tooltips on a web page that has been downloaded from a server. (EX1006 at Abstract, 1:51-57.) The tooltip is displayed when the cursor hovers over text or a graphical image on the  
10 user's display screen, and the tooltip provides additional information in the form of text or graphical information about the object to which the cursor is pointing. (*Id.* at 1:51-57, 3:35-41, 3:61-63, 3:65-4:4.) The tooltip is displayed in proximity to the object to which the cursor is pointing. (*Id.* at 6:28-32, 7:8-14.)

Malamud is a contemporary reference to Nielsen and from the same field of  
15 endeavor, as Malamud similarly teaches a system and method for displaying additional information about an object to which a cursor is pointing on a display screen. (EX1004 at Abstract, 1:35-42.) Like Nielsen, Malamud teaches that the additional information that is displayed can be in the form of text or a graphical image. (*Id.* at 2:66-3:6, 3:59-4:18.) Thus, Nielsen and Malamud address similar problems and  
20 provide similar solutions. (EX1003 at ¶143.)

While Nielsen teaches that the additional information is displayed in proximity to the object to which the cursor is pointing, Malamud teaches that the additional information is displayed as part of a modified cursor image. (EX1004 at Abstract, 3:59-4:18.) A POSITA would have been motivated to combine the teachings of Nielsen with Malamud's teaching of displaying the additional information as part of a modified cursor image because a user's attention is often focused on the cursor when navigating a computer display through the use of a pointing device such as a mouse. (EX1003 at ¶144.) When a user is looking at the cursor, the user could miss information displayed elsewhere on a screen. (*Id.*)

For example, Nielsen teaches displaying a tooltip in proximity to the object that the cursor is hovering over, such as above the object. (EX1006 at 7:8-14.) But that could be a large object that takes up a significant portion of a display screen. If a cursor were to hover over the bottom portion of such an object, and a tooltip were displayed above the object, the user might miss the tooltip if the user's attention is focused on the cursor location on the screen. (EX1003 at ¶145.) By making Nielsen's tooltip appear as part of a modified cursor image, the additional information (*i.e.*, text and/or graphics) would appear at the location on the screen where the user's attention is most likely focused. (*Id.*) Therefore, a POSITA would have been motivated to combine the teachings of Nielsen and Malamud in this manner. (*Id.*) Moreover, such a modification would have been well within the

technical skill level of a POSITA, as it could have been implemented by processing Nielsen's tooltip instruction in a manner to display the tooltip information as part of a modified cursor as disclosed in Malamud. (*Id.*) Such a modification would have had a high chance of success, as software is not an unpredictable art, and the software would have functioned according to its programming. (*Id.*)

**C. Ground 1: The Challenged Claims Are Rendered Obvious by Malamud**

**1. Claim 1**

**Element 1[Preamble]: A server system for modifying a cursor image to a specific image having a desired shape and appearance displayed on a display of a remote user's terminal, said system comprising:**

Malamud teaches a system for modifying on the display of a user terminal an initial cursor image, such as a "conventional cursor," to a specific cursor image that includes a graphical image relating to the object to which the cursor is pointing.

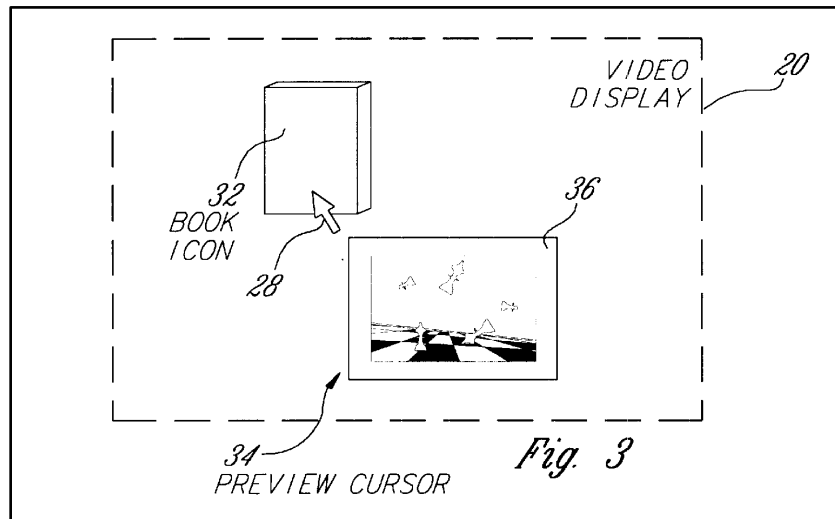
Specifically, Malamud teaches that when the cursor is at a location on the display screen where no named entity is present, a "conventional cursor" image or an "information cursor" without any corresponding specific information is displayed. (EX1004 at 5:39-44.) When the cursor is moved over a named entity displayed on the screen, the cursor image is modified to an "information cursor" that includes text and/or a graphical image related to the object on the display screen to which the cursor is pointing. (*Id.* at 5:32-39; *id.* at 2:66-3:1 ("The present invention pro-

vides ‘information cursors’ which display graphical or textual information about an object to which the cursor points.”); *id* at 3:59-4:3 (discussing a “preview cursor,” which depicts a graphical image object on the display screen to which the cursor points).) The modified cursor image is a specific image that has a desired shape and appearance as specified by the bitmap and relating to the information pointed to by the cursor. (*Id.* at 3:59-4:3, 5:57-62.)

Malamud does not address whether the user’s computer is connected by a network to a server, but connecting user computers to a server was desirable, beneficial, well known to POSITAs, and commonplace well before June 1997. (*See* IX(B)(2); EX1003 at ¶¶88-94; EX1005 at 3:1-5.) For example, it was quite common by that time to have computers connected to one or more servers in many different contexts, such as: in enterprise settings, where employee computers were connected to company servers; in educational settings, where student computers were connected to school servers; or in a home settings, where individuals’ computer would connect to internet servers. (EX1003 at ¶¶89-90.) The inventors of the ’102 Patent admit that, by 1997, millions of people all over the world were using personal computers to access digital content over the internet. (EX1001 at 1:9-19.) Thus, a POSITA would have been motivated to use Malamud’s system for modifying a cursor image on a computer connected to a server (*see supra* § X(B)(2)), and it would have been obvious to do so (EX1003 at ¶¶88-94, 165).

**Element 1[a]: cursor image data corresponding to said specific image;**

Malamud teaches cursor image data corresponding to the specific image in the form of a “bitmap of graphical information that the operating system 22 should use in the preview portion 36.” (EX1004 at 5:5:58-62, Fig. 3.) The bitmap is data for a modified cursor image in the form of Malamud’s preview cursor or combined name and preview cursor (*id.* at 3:59-4:18), and the bitmap image is a specific image that corresponds to a portion of the subject or topic being displayed on the screen, such as an image related to a book being pointed to by the cursor (*id.* at 3:61-4:3, Fig. 3).



**Element 1[b]: cursor display code, said cursor display code operable to modify said cursor image; and**

Malamud discloses that the window procedure of the application program constructs and passes a message to the OS that “tells the operating system what type of cursor to display and sets forth the contents and type of information to be

displayed in the cursor (step 58 in FIG. 7).” (*Id.* at 5:47-53; *see also id.* at 3:6-8 (“Information cursors are made available by an operating system to applications that are run on the operating system.”), Figs. 6-7.) The code that interprets the instructions in the application program, causes the message to be constructed and transmitted with the appropriate content and form, and causes the cursor image to change from the original cursor shape to the shape of the information cursor is “cursor display code,” as it is “operable to modify said cursor image.” (EX1003 at ¶¶107, 169; *see also* EX1008 at Ex. 1, p. 1 (Patent Owner asserting that “cursor display code” means “computer code for modifying the display of the cursor image”).)

**Element 1[c][i]: a first server computer for transmitting specified content information to said remote user terminal,**

Malamud does not address how the user’s computer obtains Malamud’s application program, but requesting and transmitting application programs from a server to a user’s computer was desirable, beneficial, well known to POSITAs, and commonplace well before June 1997. (*See* §§ IX(C)(1)(Element[Preamble]), IX(B)(2).) Thus, a POSITA would have been motivated to download Malamud’s application program from a server (*see supra* § IX(B)(2)), and it would have been obvious to do so (EX1003 at ¶¶88-94).

The parties agree that “specified content information” means “information provided to a user’s terminal for use in the display, such as a web page.” (EX1008 at 3.) Malamud’s application program comprises “specified content information” because it includes information for use in the display on a user’s computer because  
5 it generates the content displayed in the application window, for example the book icon 32 pointed to by the cursor and the preview cursor image. (EX1004 at 3:36-39, 3:59-4:18, Fig. 4; EX1003 at ¶172.)

**Element 1[c][ii]: said specified content information including at least one cursor display instruction indicating a location of said cursor image data, said  
10 cursor display instruction and said cursor display code operable to cause said user terminal to display a modified cursor image on said user’s display in the shape and appearance of said specific image,**

Malamud teaches that the specified content information of the application program includes a “cursor display instruction” in the form of instructions in the  
15 application program that indicate whether to display an information cursor for an object, and if so, the type of information cursor to display. (EX1004 at 5:46-6:16.)

The instructions in Malamud’s application program for a preview cursor or a combined name and preview cursor include a pointer to a bitmap for the preview image, which gets transmitted as part of the message to the OS. (*Id.* at 5:57-62.) Malam-

20 ud’s cursor display instruction and cursor display code together cause the user’s

computer to display a modified cursor image in the form of a preview cursor or a combined name and preview cursor, which is in the shape and appearance of the specific image. (*Id.* at 3:50-4:18, 5:5:47-62.)

**Element 1[c][iii]: wherein said specified content information is transmitted to**  
5 **said remote user terminal by said first server computer responsive to a re-**  
**quest from said user terminal for said specified content information, and**  
**wherein said specified content information further comprises information to**  
**be displayed on said display of said user's terminal,**

As discussed in regard to Elements 1[Preamble] and 1[c][i], it would have  
10 been obvious to a POSITA for a user to request and receive Malamud's application  
program from a server. And as further discussed in regard to Element 1[c][i], Mal-  
amud's application program comprises specified content information that includes  
information to be displayed on the user's computer, such as the image 32 of the  
book icon being pointed to by the cursor (EX1004 at Fig. 4).



**Element 1[c][iv]: said specific image including content corresponding to at least a portion of said information to be displayed on said display of said user's terminal, and wherein said cursor display code is operable to process said cursor display instruction to modify said cursor image to said cursor image in the shape and appearance of said specific image in response to movement of said cursor image over a display of said at least a portion of said information to be displayed on said display of said user's terminal, and wherein said specific image relates to at least a portion of said information to be displayed on said display of said remote user's terminal.**

Malamud's preview cursor and combined name and preview cursor include content corresponding to at least a portion of the information displayed on the user's screen, such as an image that relates to the book icon. (EX1004 at 3:59-4:18.) As discussed in regard to Element 1[c][ii], the cursor display code is used to processes the cursor display instruction to modify the cursor image into the shape of the specific image when the cursor is placed over a portion of the information displayed on the user's computer screen, and the specific image relates to at least a portion of the information displayed on the user's computer. (*See also* EX1004 at Abstract, 1:38-42, 2:10-12, 2:66-3:3:6, 3:50-4:18; EX1003 at ¶¶107, 178.)

Thus, claim 1 would have been obvious in view of Malamud.

## 2. Claim 27

Claim 27 is identical to claim 1 except that claim 1 recites that the modified cursor image is displayed in response to movement of the cursor image over “a display of said at least a portion of said information to be displayed on said display  
5 of said user’s terminal” (EX1002 at 19:1-3), whereas claim 27 recites that the modified cursor image is displayed in response to movement of the cursor image over “a specified location on said display of said user’s terminal” (*id.* at 20:63-65). Malamud teaches that when the cursor is moved, a message is transmitted identifying the location of the mouse on the screen, and that information is used to deter-  
10 mine whether to display the modified cursor. (EX1004 at 5:3-7 (“The mouse messages specify the status of mouse buttons and the position of the cursor within the window. The position of the cursor within the window is specified in (X, Y) coordinates relative to the upper left-hand corner of the window.”), 5:22-45).) In light of that teaching in Malamud and for the reasons set forth above regarding claim 1,  
15 claim 27 would have been obvious to a POSITA in view of Malamud. (EX1003 at ¶180.)

### 3. Claim 53

**Element 53[Preamble]: A method for modifying an initial cursor image displayed on a display of a user terminal connected to at least one server, comprising:**

5           Malamud teaches a method for modifying on the display of a user terminal an initial cursor image, such as a “conventional cursor,” to a specific cursor image that includes a graphical image of the object to which the cursor is pointing. Specifically, Malamud teaches that when the cursor is at a location on the display screen where no named entity is present, a “conventional cursor” image or an “in-  
10   formation cursor” without any corresponding specific information is displayed. (EX1004 at 5:39-44.) When the cursor is moved over a named entity displayed on the screen, the cursor image is modified to an “information cursor” that includes text and/or a graphical image related to the object on the display screen to which the cursor is pointing. (*Id.* at 5:32-39; *id.* at 2:66-3:1 (“The present invention pro-  
15   vides ‘information cursors’ which display graphical or textual information about an object to which the cursor points.”); *id.* at 3:59-4:3 (discussing a “preview cursor,” which depicts a graphical image object on the display screen to which the cursor points).)

          Malamud does not address whether the user’s computer is connected by a  
20   network to a server, but connecting user computers to a server was desirable, bene-

ficial, well known to POSITAs, and commonplace well before June 1997. (*See* § IX(B)(2); EX1003 at ¶¶88-94; EX1005 at 3:1-5.) For example, it was quite common by that time to have computers connected to one or more servers in many different contexts, such as: in an enterprise, where employee computers were connected to company servers; in an educational setting, where student computers were connected to a school server; or in a home, where an individual's computer would connect to internet servers. (EX1003 at ¶¶89-90.) The inventors of the '102 Patent admit that, by 1997, millions of people all over the world were using personal computers to access digital content over the internet. (EX1001 at 1:9-19.)

Thus, a POSITA would have been motivated to use Malamud's method for modifying a cursor image on a computer connected to a server (*see supra* § IX(B)(2)), and it would have been obvious to do so (EX1003 at ¶¶88-94, 182-183).

**Element 53[a]: receiving a request at said at least one server to provide specified content information to said user terminal;**

As discussed in Section IX(C)(1)(Elements 1[Preamble] and 1[c][i]), it would have been obvious to a POSITA for a user to request and receive Malamud's application program from a server. And as further discussed in regard to Element 1[c][i], Malamud's application program comprises specified content information that includes information to be displayed on the user's computer, such as the image 32 of the book icon being pointed to by the cursor (EX1004 at Fig. 4).

**Element 53[b]: providing said specified content information to said user terminal in response to said request, said specified content information including at least one cursor display instruction and at least one indication of cursor image data corresponding to a specific image; and**

5           As discussed in Section IX(C)(1)(Element 1[c][i]), it would have been obvious in view of Malamud for a user to request and receive from a server an application program comprising specified content information.

          As discussed in Section IX(C)(1)(Element 1[c][ii]), the specified content information would include at least one cursor display instruction and an indication of  
10   cursor image data, such as the location of the cursor image data.

          And as discussed in Section IX(C)(1)(Element 1[a]), the cursor image data would correspond to the specific image.

          Thus, this limitation would have been obvious to a POSITA in view of Malamud. (EX1003 at ¶¶187-190.)

**Element 53[c][i]: transforming said initial cursor image displayed on said display of said user terminal into the shape and appearance of said specific image in response to said cursor display instruction, wherein said specified content information includes information that is to be displayed on said display of said user's terminal, wherein said specific image includes content corresponding to at least a portion of said information that is to be displayed on said display of said user's terminal, and**

Malamud teaches that when the cursor is not pointing to a named object, “either a conventional cursor is displayed or the information containing portion (*e.g.*, name box 30, preview portion 36, or property box 40) of the information cursor is shown in blank (step 57).” (EX1004 at 5:39-44.) The conventional cursor or information cursor lacking any specific information is an “initial cursor image.”

Malamud further teaches determining whether the cursor has been moved over an object displayed in the application's display window, where the object has an identity (*i.e.*, an associated information cursor). (*Id.* at 5:32-34.) Malamud instructs that “[i]f a named entity is present at the specified cursor position, the information regarding the object at the specified cursor position is displayed in the information cursor (step 56).” (*Id.* at 5:36-39.) If the information cursor is a preview cursor, this modified cursor image will include a graphical image related to the object on the display to which the cursor is pointing. (*Id.* at 3:59-4:3.) That

graphical image is the specific image contained in the bitmap. (*Id.* at 5:57-62.)

This functionality is carried out according to instructions in the application program and through code that causes the application program's window procedure to construct and pass a message to the OS that "tells the operating system what type  
5 of cursor to display and sets forth the contents and type of information to be displayed in the cursor (step 58 in FIG. 7)." (*Id.* at 5:47-53.) Thus, Malamud teaches transforming the initial cursor image into the shape and appearance of the specific image in response to a cursor display instruction. (EX1003 at ¶193.)

Malamud further teaches that the application program provides the information to be displayed in the window for that application. (EX1004 at 3:36-41,  
10 3:63-4:3; *see also id.* at 5:24-30 (discussing the application program controlling the display in a particular window); *see, e.g., id.* at Fig. 3 (depicting book icon 32 generated by the application program).) Thus, the "specified content information" received from the server in the form of the application program would include "information that is to be displayed on said display of said user's terminal." (EX1003  
15 at ¶194.)

And as discussed above, the preview cursor (*i.e.*, the modified cursor image) includes a graphical image related to the object in the application window to which the cursor is pointing. (EX1004 at 3:59-4:18.) For example, if the cursor is pointing  
20 ing to a book, the preview cursor would include an image related to the subject

matter of the book. (*Id.*) Therefore, Malamud teaches that the “specific image includes content corresponding to at least a portion of said information that is to be displayed on said display of said user’s terminal.” (EX1003 at ¶195.)

**Element 53[c][iii]: wherein said cursor display instruction indicates a cursor display code operable to process said cursor display instruction to modify said cursor image to said cursor image in the shape and appearance of said specific image in response to movement of said cursor image over a display of said at least a portion of said information to be displayed on said display of said user’s terminal, and**

Malamud teaches that the application program has a cursor display instruction, for each entity displayed on the screen that has an information cursor, what type of cursor to display and, for a preview cursor, a pointer to a bitmap that should be displayed in the modified cursor image, and the windows procedure accesses that instruction and passes an appropriate message to the OS. (EX1004 at 5:47-62.) By indicating the type of information cursor to be displayed, the instructions in the application program indicate what cursor display code<sup>6</sup> must be used to

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<sup>6</sup> In the District Court litigation, Petitioner contends that “cursor display code” should be given its plain and ordinary meaning. (EX1008 at Ex. 1, p. 1.) Patent Owner asserts that “cursor display code” means “computer code for modifying the display of the cursor image.” (*Id.*) Malamud satisfies Patent Owner’s pro-



process the message to properly transmit the message to the OS (for example, by using the appropriate API) and to display the appropriate type of information cursor. (See EX1004 at 5:47-62, Figs. 6-7; EX1003 at ¶107, 197.) For example, Malamud teaches cursor display code in the form of an algorithm that would implement portions of Figures 6 and 7. (EX1004 at Figs. 6-7.) The cursor display instruction would indicate whether an object has an associated information cursor and, if so, the type of information cursor, and that would indicate what cursor display code should be used to process the instruction and properly transmit the message and display the information cursor. (*Id.* at 5:46-62, Figs. 6-7 (implemented in code); EX1003 at ¶107, 197.)

That message also includes a pointer to a bitmap, which specifies the shape and appearance of the specific image (*i.e.*, the image of the modified cursor). (EX1004 at 5:46-62; EX1003 at ¶198.) Malamud teaches that the cursor image is modified in response to the movement of the cursor over an object displayed in the

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posed construction, as the code in Malamud that interprets, transmits, and implements the instructions regarding whether to display an information cursor, the type of information cursor to display, and what graphical information to display is “computer code for modifying the display of the cursor image.” (EX1004 at 5:46-62; EX1003 at ¶107.)

application window (EX1004 at 5:24-39), and that object is a “display of said at least a portion of said information to be displayed on said display of said user’s terminal.”

While disclosed in Malamud, it also would have been obvious to a POSITA that a cursor display instruction indicate the cursor display code to use to process the cursor display instruction, as it was well known for application programs to indicate the code to use to display information on a user’s screen. (EX1003 at ¶199.) Additionally, by identifying the type of information cursor to display, the cursor display instruction indicates what cursor display code is needed to transfer the instruction information to the OS through the appropriate API for that particular type of information cursor. (*Id.*) Such code is cursor display code because it causes the cursor image to change to the modified cursor image. (*Id.*)

**Element 53[c][iii]: wherein said specific image has a shape and appearance relating to said information to be displayed.**

Malamud teaches that the preview cursor (and the combined name and preview cursor), which is a specific image as discussed above, has a shape and appearance relating to information to be displayed on the screen. (EX1004 at 1:39-43, 2:10-12, 3:59-4:18.)

It also would have been obvious to a POSITA in view of Malamud that the specific image identified in the bitmap could be in a shape and appearance relating

to information displayed on the screen given Malamud's teaching that the bitmap provides information related to the image displayed on the screen. (*Id.*; EX1003 at ¶202.)

Thus, claim 53 would have been obvious to a POSITA in view of Malamud.

5       **D.     Ground 2: The Challenged Claims Are Rendered Obvious by  
          Malamud and Nakagawa**

1.     **Claim 1**

**Element 1[Preamble]:**<sup>7</sup>

10       Malamud teaches a system for modifying on the display of a user terminal  
an initial cursor image, such as a “conventional cursor,” to a specific cursor image  
that includes a graphical image of the object to which the cursor is pointing. Specifically, Malamud teaches that when the cursor is at a location on the display screen where no named entity is present, a “conventional cursor” image or an “information cursor” without any corresponding specific information is displayed.  
15       (EX1004 at 5:39-44.) When the cursor is moved over a named entity displayed on the screen, the cursor image is modified to an “information cursor” that includes text and/or a graphical image related to the object on the display screen to which the cursor is pointing. (*Id.* at 5:32-39; *id.* at 2:66-3:1 (“The present invention pro-

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<sup>7</sup> The claim limitations are recited in Section IX(C), as well as in the Listing of Challenged Claims at the end of this Petition for ease of reference.

vides ‘information cursors’ which display graphical or textual information about an object to which the cursor points.”); *id.* at 3:59-4:3 (discussing a “preview cursor,” which depicts a graphical image object on the display screen to which the cursor points).) The modified cursor image is a specific image that has a desired shape and appearance as specified by the bitmap and relating to the information pointed to by the cursor. (*Id.* at 3:59-4:3, 5:57-62.)

Malamud does not address whether the user’s computer is connected by a network to a server, but connecting user computers to a server was desirable, beneficial, well known to POSITAs, and commonplace well before June 1997. (*See* § IX(B)(2-3); EX1003 at ¶¶88-94, 207-208; EX1005 at 3:1-5.) For example, Nakagawa discloses a user computer connected over a network to a server so that a user can request and download software from a server, as well as downloading updates to the software. (*See, e.g.*, EX1005 at Abstract (“A number of sets of software may be systematically distributed and maintained via a network connecting many vendors and users of client/server software.”); *id.* at 1:13-16 (“The present invention relates to a software distribution and maintenance system and method with which a software vendor can provide a number of users with software over a network . . . .”); *id.* at 1:46-54 (describing a user’s ability to download software from a vendor at the user’s request).) The inventors of the ’102 Patent even admit that, by 1997, millions of people all over the world were using personal computers

to access digital content over the internet. (EX1001 at 1:9-19.) Additionally, a user would have been motivated to combine the teachings of Malamud and Nakagawa. (*See supra* § IX(B)(3).) Thus, it would have been obvious to a POSITA to use Malamud's method for modifying a cursor image in conjunction with Nakagawa's disclosure of a server system to create a server system for modifying a cursor image in accordance with the recitation in the preamble. (EX1003 at ¶¶205-208.)

**Element 1[a]:**

This limitation is obvious in by Malamud for the same reasons set forth in Section IX(C)(1)(Element 1[a]).

**Element 1[b]:**

This limitation is taught by Malamud for the same reasons set forth in Section IX(C)(1)(Element 1[b]).

**Element 1[c][i]:**

Malamud does not address how the user's computer obtains Malamud's application program. Requesting and receiving application programs from a server, however, was desirable, beneficial, well known to POSITAs, and commonplace well before June 1997. (*See* § IX(B)(2-3); EX1003 at ¶¶88-94, 207-208; EX1005 at 3:1-5; § IX(D)(1)(Element 1[Preamble].) Thus, a POSITA would have been motivated download Malamud's application program from a server (*see supra* § IX(B)(2-3)), and it would have been obvious to do so (EX1003 at ¶¶88-94, 214).

The parties agree that “specified content information” means “information provided to a user’s terminal for use in the display, such as a web page.” (EX1008 at 3.) Malamud’s application program comprises “specified content information” because it includes information for use in the display on a user’s computer because  
5 it generates the content displayed in the application window, for example the book cover and the preview cursor image. (EX1004 at 3:36-39, 3:59-4:18; EX1003 at ¶215.)

**Element 1[c][ii]:**

This limitation is taught by Malamud for the same reasons set forth in Section IX(C)(1)(Element 1[c][ii]).  
10

**Element 1[c][iii]:**

As discussed in regard to Element 1[c][i], it would have been obvious to a POSITA for a user to request and receive Malamud’s application program from a server using a client/server system as disclosed in Nakagawa. And as further discussed in regard to Element 1[c][i], Malamud’s application program comprises  
15 specified content information that includes information to be displayed on the user’s computer.

**Element 1[c][iv]:**

This limitation is taught by Malamud for the same reasons set forth in Section IX(C)(1)(Element 1[c][iv]).  
20

Thus, claim 1 would have been obvious in view of Malamud and Nakagawa.

## 2. Claim 27

Claim 27 is identical to claim 1 except that claim 1 recites that the modified cursor image is displayed in response to movement of the cursor image over “a display of said at least a portion of said information to be displayed on said display of said user’s terminal” (EX1002 at 19:1-3), whereas claim 27 recites that the modified cursor image is displayed in response to movement of the cursor image over “a specified location on said display of said user’s terminal” (*id.* at 20:63-65). Malamud teaches that when the cursor is moved, a message is transmitted identifying the location of the cursor on the screen, and that information is used to determine whether to display the modified cursor. (EX1004 at 5:3-7 (“The mouse messages specify the status of mouse buttons and the position of the cursor within the window. The position of the cursor within the window is specified in (X, Y) coordinates relative to the upper left-hand corner of the window.”), 5:22-45).) In light of that teaching in Malamud and for the reasons set forth above regarding claim 1, claim 27 would have been obvious to a POSITA in view of Malamud and Nakagawa. (EX1003 at ¶223.)

### 3. Claim 53

#### **Element 53[Preamble]:**

As discussed above in Section IX(C)(3)(Element 53[Preamble]), Malamud discloses a method for modifying an initial cursor image on a display of a user's terminal.

Malamud does not address whether the user's computer is connected by a network to a server, but connecting user computers to a server was desirable, beneficial, commonplace, and well known to POSITAs well before June 1997. (*See* § IX(B)(2-3); EX1003 at ¶¶88-94, 207-208; EX1005 at 3:1-5; § IX(D)(1)(Element 1[Preamble].) Thus, it would have been obvious to a POSITA to use Malamud's method for modifying a cursor image in conjunction with Nakagawa's disclosure of downloading software to a user's computer through a network connected to a server. (EX1003 at ¶¶224-226.)

#### **Element 53[a]:**

As discussed in Section IX(D)(1)(Elements 1[Preamble] and 1[c][i]), it would have been obvious to a POSITA for a user to request and receive Malamud's application program from a server, as disclosed in Nakagawa. And as further discussed in regard to Element 1[c][i], Malamud's application program comprises specified content information that includes information to be displayed on the us-



er's computer, such as the image 32 of the book icon being pointed to by the cursor (EX1004 at Fig. 4).

**Element 53[b]:**

As discussed in Section IX(D)(1)(Element 1[c][i]), it would have been obvious in view of Malamud and Nakagawa for a user to request and receive from a server an application program comprising specified content information.

As discussed in Section IX(C)(1)(Element 1[c][ii]), the specified content information would include at least one cursor display instruction and an indication of cursor image data, such as the location of the cursor image data.

And as discussed in Section IX(C)(1)(Element 1[a]), the cursor image data would correspond to the specific image.

Thus, this limitation would have been obvious to a POSITA in view of Malamud and Nakagawa. (EX1003 at ¶¶232-235.)

**Element 53[c][i]:**

As addressed in Section IX(C)(3)(Element 53[c][i]), Malamud teaches this claim limitation.

**Element 53[c][ii]:**

As addressed in Section IX(C)(3)(Element 53[c][ii]), Malamud teaches this claim limitation and/or renders it obvious.

**Element 53[c][iii]:**

As addressed in Section IX(C)(3)(Element 53[c][iii]), Malamud teaches this claim limitation and/or renders it obvious.

Thus, claim 53 would have been obvious to a POSITA in view of Malamud  
5 and Nakagawa.

**E. Ground 3: The Challenged Claims Are Rendered Obvious by  
Nielsen and Malamud**

**1. Claim 1**

**Element 1[Preamble]:**

10 Nielsen teaches a method for displaying a tooltip on a display of a user terminal connected to at least one server. (EX1006 at Abstract, 1:18-26, 1:51-57.)

The tooltip, which can be a text and/or a graphic (a specific image having a desired shape and appearance) relating to the object to which the cursor is pointing (*id.* at 3:37-41, 3:52-56, 3:61-63), is displayed in proximity to the object displayed to

15 which the cursor is pointing (*id.* at 7:8-12, 7:19-22). Malamud also teaches displaying text and/or a graphic relating to the object to which the cursor is pointing. (EX1004 at Abstract, 1:40-42, 3:59-4:17.) Malamud teaches that this text and/or

graphic can be part of a cursor that includes the additional text and/or graphic. (*Id.* at 3:59-4:3.). A POSITA would have been motivated to modify the teachings of

20 Nielsen such that the tooltip is not displayed above the object to which the cursor is pointing, but rather is displayed as part of a modified cursor image. (*See supra*

§ IX(B)(4); EX1003 at ¶¶142-145.) Thus, it would have been obvious to a POSITA to modify the teachings of Nielsen to modify an initial cursor image into a modified cursor image that includes the tooltip having a desired shape and appearance and displayed on a user's terminal. (EX1003 at ¶¶244-245.)

5 **Element 1[a]:**

Nielsen teaches that the server transmits HTML code for a web page to the user's computer. (EX1006 at 1:12-14, 1:18-26.) The HTML code specifies, in part, an "icon or other illustration" (image data) to be depicted as the tooltip (*id.* at 3:61-63), and the tooltip would be a specific image related to the information displayed on the screen (*id.* at 3:35-41). While Nielsen's tooltips are displayed as separate images, it would have been obvious to a POSITA to display the tooltips as part of a modified cursor image, and a POSITA would have been motivated to do so in view of Nielsen and Malamud. (*See* § IX(B)(4) (discussing the motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.) Thus, it would have been obvious to a POSITA to modify Nielsen's teachings to make the tooltip display instruction a cursor display instruction, which would make the indication of a bitmap for a graphical tooltip image into an indication of cursor image data corresponding to a specific image. (EX1003 at ¶¶246-247.)

**Element 1[b]:**

Nielsen teaches display code for processing tooltip instructions, where the code is operable to process the instruction and display the appropriate tooltip on the users display screen. (EX1006 at Abstract, 1:36-37 (discussing that the browser software displays the tooltip as specified by the web page designer), 1:51-62, 3:35-41, 3:46-63, 5:20-58 (describing the processing that is performed by the browser code when a tooltip instruction is detected).) Nielsen further teaches an algorithm implemented by code to display the tooltip appropriately. (*Id.* at 5:18-6:20; *see also* Fig. 6(a) (step 606 indicating that the presence of a tooltip instruction indicates what portion of the algorithm, implemented by code, should be used to process the HTML code).)

While Nielsen's tooltip is displayed as a separate image, it would have been obvious to a POSITA that the tooltip could be displayed as part of a modified cursor image as taught in Malamud, and a POSITA would have been motivated to modify the teachings of Nielsen in that manner. (*See* § IX(B)(4) (discussing the motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.) Modifying the teachings of Nielsen in such a manner would result in Nielsen's tooltip display code being cursor display code, and Nielsen's tooltip being a modified cursor image. (EX 1003 at ¶¶249-250.)

**Element 1[c][i]:**

Nielsen teaches that the server provides the specified content information in the form of HTML code for a web page to the user's computer in response to the user's request for the web page. (EX1006 at 1:12-14, 1:18-26.) The HTML code for the web page is specified content information regarding the web page to be displayed, and it includes instructions regarding the display of tooltips, such as an indication whether any tooltips are to be displayed, what is to be displayed, and the information on the user's screen to which the cursor must point to invoke the display of the tooltips. (*Id.* at 1:51-62, 3:35-41, 3:46-4:7.) Likewise, Malamud's application program includes information to be displayed on the user's screen, such as book icon 32, and instructions regarding the display of information cursors. (EX1004 at 3:59-4:18). While Nielsen's tooltips are displayed as separate images, a POSITA would have been motivated to display the tooltips as part of a modified cursor image, and it would have been obvious to do so. (*See* § IX(B)(4) (discussing the motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.)

**Element 1[c][ii]:**

Nielsen teaches that the HTML code for the web page (specified content information) includes a tooltip display instruction that specifies when to display the tooltip, the type of tooltip to display, and the content of the tooltip. (EX1006 at

1:18-26, 1:51-57, 3:36-41, 3:46-4:7.) As discussed above, a POSITA would have been motivated to modify Nielsen's tooltip display instructions to make them cursor display instructions, as taught by Malamud, and it would have been obvious to do so. (*See* § IX(E)(1)(Element 1[Preamble]); *see also* § IX(B)(4) (regarding motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.)

Nielsen's tooltip instruction indicates the location of image data by specifying the name of the icon or other illustration to display or by specifying a file name and location for the tooltip. (EX1006 at 3:56-63.) It also would have been obvious to a POSITA in view of Nielsen and Malamud that the cursor display instruction could include a pointer to a bitmap, as taught in Malamud. (Ex. 1004 at 5:57-62; EX1003 at ¶255.)

Together, Nielsen's tooltip display instruction and display code cause the tooltip to be displayed. (EX1006 at 5:18-6:20, 7:8-19.) If the teachings of Nielsen were modified for the reasons discussed above to display the tooltip as a modified cursor image, the code and instructions would be cursor display code and cursor display instructions that cause a modified cursor image to be displayed in the shape and appearance of the specific image identified by the icon, filename, or bitmap. (*Id.* at 3:56-63; EX1004 at 5:57-62; EX1003 at ¶256.)

**Element 1[c][iii]:**

As discussed in regard to Element 1[c][i], Nielsen teaches that the server provides the specified content information in the form of HTML code for a web page to the user's computer in response to the user's request for the web page.

5 (EX1006 at 1:12-14, 1:18-26.) That HTML code would include information to be displayed on the user's screen in the form of the web page displayed by the browser. (*Id.* at Abstract, 6:36-41, Fig. 7 (element 702 ("Display web page in accordance with HTML"))).)

**Element 1[c][iv]:**

10 Nielsen teaches that the tooltip image includes content corresponding to at least a portion of the information on the web page displayed on the user's terminal. (EX1006 at 3:35-41 ("... tooltip text is displayed, providing further explanation of the information at the predetermined location."), 3:61-63 (explaining that the tooltip display can be an image in the form of an icon or other illustration).)

15 As discussed above in regard to Element 1[c][ii], it would have been obvious to a POSITA to display Nielsen's tooltip as part of a modified cursor image, thus making Nielsen's tooltip display instructions and display code into cursor display instructions and cursor display code. Such cursor display code would be used to process the cursor display instruction, as Nielsen teaches using display code to  
20 process the tooltip instruction. (*See, e.g.*, EX1006 at 5:30-6:35.) The modified

image is then displayed in the shape and appearance of the specific image when the cursor is moved over at least a portion of the information displayed on the user's terminal. (*Id.* at Abstract, 1:51-57, 3:35-41.) And as discussed above at the outset of this element, Nielsen teaches that the tooltip image includes content corresponding to at least a portion of the information on the web page displayed on the user's terminal, so the tooltip image "relates to at least a portion of said information to be displayed on said display of said remote user's terminal."

Thus, claim 1 would have been obvious to a POSITA in view of Nielsen and Malamud.

## 2. Claim 27

Claim 27 is identical to claim 1, except claim 1 recites that the modified cursor image is displayed in response to movement of the cursor image over "a display of said at least a portion of said information to be displayed on said display of said user's terminal" (EX1002 at 19:1-3), whereas claim 27 recites that the modified cursor image is displayed in response to movement of the cursor image over "a specified location on said display of said user's terminal" (*id.* at 20:63-65). Nielsen teaches both by teaching that display of the tooltip depends upon the location of the cursor and what is depicted at that location. (EX1006 at 1:51-56 (discussing the display of tooltips based upon the displayed information pointed to by the cursor), 3:35-41 (discussing displaying the tooltip when the cursor is at a "pre-



determined location on the display device”), 6:63-7:19 (explaining how the cursor location and information displayed at that location are used to determine whether to display a tooltip).)

As discussed above, it would have been obvious to a POSITA to combine the teachings of Nielsen and Malamud and display the tooltip as a modified cursor image, rendering claim 27 obvious. (EX1003 at ¶¶263-264.)

### 3. Claim 38

**Claim 38:** The server system in accordance with claim 27, wherein said specified content information is transmitted in the form of HTML files that define a web page.

Nielsen teaches that the specified content information (as discussed above in Element 1[c][i], which is identical to Element 27[c][i]) is transmitted from a server to a user in the form of HTML code that defines a web page. (EX1006 at Abstract, 1:12-28, 1:51-62, 1:66-2:9, 3:46-4:7, Fig. 6(a) (element 604).)

Thus, claim 38 would have been obvious to a POSITA in view of Nielsen and Malamud. (EX1003 at ¶¶265-266.)

### 4. Claim 53

**Element 53[Preamble]:**

Nielsen teaches a method for displaying a tooltip on a display of a user terminal connected to at least one server. (EX1006 at Abstract, 1:18-26, 1:51-57.)

The tooltip, which can be a text and/or a graphic relating to the object to which the cursor is pointing (*id.* at 3:37-41, 3:52-56, 3:61-63), is displayed in proximity to the displayed object to which the cursor is pointing (*id.* at 7:8-12, 7:19-22). Malamud also teaches displaying text and/or a graphic relating to the object to which the cursor is pointing. (EX1004 at Abstract, 1:40-42, 3:59-4:17.) Malamud teaches that this text and/or graphic can be part of a modified cursor image. (*Id.* at 3:59-4:3.). A POSITA would have been motivated to modify the teachings of Nielsen such that the tooltip is not displayed above the object to which the cursor is pointing, but rather is displayed as part of a modified cursor image to ensure that user sees the supplemental information or graphic. (*See supra* § IX(B)(4); EX1003 at ¶¶142-145.) Thus, it would have been obvious to a POSITA to modify the teachings of Nielsen to modify an initial cursor image into a modified cursor image that includes the tooltip. (EX1003 at ¶¶267-268.)

**Element 53[a]:**

As discussed in Section IX(E)(1)(Elements 1[Preamble] and 1[c][i]), Nielsen teaches a user requesting and receiving HTML code for a web page from a server. And as further discussed in regard to Element 1[c][i], the HTML code for the web page is “specified content.”

**Element 53[b]:**

As discussed in Section IX(E)(1)(Element 1[c][i]), Nielsen teaches a user to request and receive from a server HTML code for a web comprising specified content information.

5 As discussed in Section IX(E)(1)(Element 1[c][ii]), the specified content information would include at least one tooltip display instruction and an indication of image data, such as the location of the image data, and it would have been obvious to modify the teachings of Nielsen, in view of Malamud, to modify the tooltip display instruction into a cursor display instruction, and to modify the tooltip image  
10 data into cursor image data.

And as discussed in Section IX(E)(1)(Element 1[a]), it would be obvious modify the teachings of Nielsen in view of Malamud such that the cursor image data corresponds to the specific image.

Thus, this limitation would have been obvious to a POSITA in view of Nielsen and Malamud. (EX1003 at ¶¶271-272.)  
15

**Element 53[c][i]:**

Nielsen teaches transforming the display on the user's terminal to display a tooltip when the cursor points to an object on the display that has an associated tooltip. (EX1006 at Abstract, 1:51-62, 3:35-41.) While Nielsen's tooltip is displayed as a separate image, it would have been obvious to a POSITA that the  
20

tooltip could be displayed as part of a modified cursor image as taught in Malamud, and a POSITA would have been motivated to modify the teachings of Nielsen in that manner. (*See* § IX(B)(4) (discussing the motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.) The modified cursor image is  
5 in the shape and appearance of the specific image specified by the bitmap and would be displayed in response to the tooltip instruction when the cursor is placed over an object on the screen that has an associated tooltip (EX1006 at 3:35-41, 3:46-4:7), and the tooltip instruction would be a cursor display instruction when the tooltip is displayed as part of a modified cursor image by combining the teach-  
10 ings of Nielsen and Malamud. (EX1003 at ¶274.)

The specified content information received from the server in Nielsen (*i.e.*, the HTML code for the web page, including the tooltip instructions), includes information displayed on the user's computer, in the form of the web page and the tooltips. (EX1006 at 1:12-26, 1:51-57, 1:66-2:9.) Nielsen discloses that the tooltip  
15 relates to and provides further information about an object on the display screen pointed to by the cursor. (*Id.* at 1:54-62, 3:35-41.) Similarly, Malamud teaches that the information cursor, such as a preview cursor, also relates to the object on the computer screen to which the cursor is pointing. (EX1004 at Abstract, 1:35-43, 2:9-12, 2:66-3:6.)

Therefore, this limitation would have been obvious to a POSITA in view of the teachings of Nielsen and Malamud, and POSITA would have been motivated to combine the teachings of those references. (*See* § IX(B)(4) (discussing the motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.)

5 **Element 53[c][ii]:**

Nielsen teaches HTML code for web pages, where the code contains tooltip instructions. (EX1006 at Abstract, 1:51-62.) The tooltip instruction includes information regarding whether a tooltip is to be displayed and the type of tooltip to displayed, such as text or a graphical image. (*Id.* at 3:35-41, 3:46-63.) The tooltip  
10 therefore indicates the web browser code operable to process the instruction to display the appropriate type of tooltip. (*See, e.g., id.* at 1:36-37 (discussing that the browser software displays the tooltip as specified by the web page designer); *id.* at 3:54-56 (identifying the HTML text that indicates the presence of a tooltip that must be processed by the appropriate browser code); *id.* at 3:61-63 (identifying that  
15 a tooltip can also indicate that the tooltip should be displayed as an icon or other illustration); 5:20-58 (describing the processing that is performed by the browser code when a tooltip instruction is detected).) Nielsen further teaches an algorithm implemented by code to display the tooltip appropriately. (*Id.* at 5:18-6:20; *see also* Fig. 6(a) (step 606 indicating that the presence of a tooltip instruction indicates

what portion of the algorithm, implemented by code, should be used to process the HTML code).)

The processing of Nielsen's tooltip instruction in the HTML code causes a tooltip to be displayed in response to the user placing the cursor over an object on the displayed web page, where the object has an associated tooltip. (*Id.* at 3:35-41.) The tooltip takes the shape of the specific image in the form of an icon or other illustration as identified by the tooltip instruction and related to an image displayed on the screen and to which the cursor is pointing. (*Id.* at 3:35-41, 3:61-63.)

While Nielsen's tooltip is displayed as a separate image, it would have been obvious to a POSITA that the tooltip could be displayed as part of a modified cursor image as taught in Malamud, and a POSITA would have been motivated to modify the teachings of Nielsen in that manner. (*See* § IX(B)(4) (discussing the motivation to combine the teachings of Nielsen and Malamud); EX1003 at ¶¶142-145.) Modifying the teachings of Nielsen in such a manner would result in Nielsen's tooltip instruction being a cursor display instruction, Nielsen's tooltip display code being cursor display code, and Nielsen's tooltip being a modified cursor image in the shape and appearance of the specific image. (EX 1003 at ¶280.)

**Element 53[c][iii]:**

Nielsen teaches that the graphical tooltip image, which is a specific image as discussed above, has a shape and appearance relating to information to be dis-

played on the screen. (EX1006 at 1:51-55, 3:55-41, 3:61-64.) Likewise, Malamud teaches that the preview cursor (and the combined name and preview cursor), which is a specific image as discussed above, has a shape and appearance relating to information to be displayed on the screen. (EX1004 at 1:39-43, 2:10-12, 3:59-4:18.)

It also would have been obvious to a POSITA in view of Nielsen and Malamud that the specific image of Nielsen's tooltip could be in a shape and appearance relating to information displayed on the screen. (EX1003 at ¶283.)

Thus, the combination of Nielsen and Malamud renders claim 53 obvious.

## **X. DISCRETIONARY DENIAL IS NOT APPROPRIATE**

### **A. The Board Should Not Deny Institution Under 35 U.S.C. § 314(a)**

Institution is appropriate under the six-factor test set forth in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), as clarified by Director Vidal's June 21, 2022 interim procedure for discretionary denials (“June 21st Memo”) available at:

[https://www.uspto.gov/sites/default/files/documents/interim\\_proc\\_discretionary\\_denials\\_aia\\_parallel\\_district\\_court\\_litigation\\_memo\\_20220621.pdf](https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621.pdf)). In determining whether to exercise discretion to deny institution in view of a parallel proceeding, the Board considers the *Fintiv* factors and “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting re-

view.” *Fintiv*, IPR2020-00019, Paper 11 at 6. Importantly, the June 21st Memo explained that “the PTAB will not rely on the *Fintiv* factors to discretionarily deny institution in view of parallel district court litigation where”—as here—“a petition presents compelling evidence of unpatentability.” June 21st Memo at 2.

5           Turning first to the fourth and dispositive factor here (overlap between issues), Petitioner stipulates that, if the IPR is instituted, Petitioner will not pursue the grounds raised, or that reasonably could have been raised, in this IPR. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18-19 (PTAB Dec. 1, 2020) (precedential). There is therefore no overlap with arguments in the district  
10   court proceedings. This stipulation “mitigates concerns of potentially conflicting decisions and duplicative efforts between the district court and the PTAB,” and the Director has clarified that the PTAB will not discretionarily deny institution where, as here, Petitioner has made a *Sotera* stipulation. June 21st Memo, 7-8.

Discretionary denial under the *Fintiv* factors is therefore not appropriate.  
15   Turning briefly to the additional factors for completeness, the first factor (stay) is neutral. Petitioner has not sought a stay and cannot say with certainty whether the district court would grant a stay if an IPR trial is instituted. *See Microchip Tech. Inc. v. Bell Semiconductor, LLC*, IPR2021-00148, Paper 19 at 10 (PTAB May 14, 2021).



The second factor (proximity of trial dates) weighs slightly against institution. Trial in the parallel litigation is currently scheduled to commence on January 22, 2024. If the Board institutes on this petition, the FWD likely would be due several months after trial.<sup>8</sup> 35 U.S.C. § 314(b); 37 C.F.R. § 42.100(c). Nevertheless, Petitioner cannot predict the actual course of the litigation, and the Board has previously found that even a multi-month gap between the start of trial and the expected FWD weighs only “somewhat in favor” of exercising discretion to deny under this factor. *Equipmentsshare.com Inc. v. Ahern Rentals, Inc.*, IPR2021-00834, Paper 19 at 13 (PTAB Nov. 16, 2021); *see also Resi Media LLC v. Boxcast Inc.*, IPR2022-00067, Paper 16 at 10 (PTAB Apr. 26, 2022) (instituting IPR with trial scheduled to begin “approximately eight months before [the] deadline to reach a final decision.”). Furthermore, the Director’s June 21st Memo noted that “when other relevant factors weigh against exercising discretion to deny institution or are neutral, the proximity to trial should not alone outweigh all of those other factors.” June 21st Memo at 8. Additionally, while the Texas court set a trial date of January 22, 2024, multiple trials were set for that date. The defendants are entitled to

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<sup>8</sup> Petitioner diligently prepared and submitted this petition after learning of Patent Owner’s proposed claim constructions, meeting and conferring with Patent Owner to compromise on constructions, and the submission of the Parties’ Joint Claim Construction and Prehearing Statement on May 16, 2023. (EX1008.)

separate trials, which will need to proceed on separate dates. Thus, trial might not proceed at that time.

The third factor (investment in parallel proceedings) weighs somewhat against institution. The Board's institution decision would likely issue around December 2023, after fact and expert discovery and the deadline for dispositive motions (October 16, 2023) have passed, so the parties likely will have made significant investments in the case.

The fifth factor (same parties) is neutral given the preceding considerations. Although Petitioner is also the Defendant in the parallel District Court Litigation, Petitioner's stipulation (addressed in regard to factor 4) should address the concern underlying this factor.

The sixth factor (other circumstances) strongly weighs in favor of institution. As set forth in this Petition, the compelling merits of the grounds are very strong. As the Director has explained, where "the information presented in the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily deny institution under *Fin-*  
*tiv.*" June 21st Memo at 4–5.

**B. The Board Should Not Deny Institution Under 35 U.S.C. § 325(d)**

The Board also should not exercise its discretion under § 325(d) to deny institution. Under the *Advanced Bionics* two-part framework, the Board assesses:

(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

*Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential); *see also Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential) (listing factors to consider for § 325(d)). Here, the first part of the *Advanced Bionics* framework—which covers *Becton* factors (a), (b), and (d)—is not satisfied because none of the cited references were considered during prosecution of the '449 Patent (EX1002, Cover (“References Cited”)), nor has the Board previously considered the specific arguments or combinations of references presented in this Petition. That should be sufficient to overcome § 325(d). *Thorne Rsch., Inc. v. Tr. of Dartmouth Coll.*, IPR2021-00491, Paper 18 at 7-9 (PTAB Aug. 12, 2021) (declining to exercise discretion under 325(d) because the combination of a reference previously presented to the Office with two newly asserted references was not the same or substantially the same as art previously presented to the Office).

Patent Owner may assert that Malamud was previously considered in connection with the RLC IPR—to which Petitioner was not an RPI—but that is unavailing for two reasons. **First**, the Board did not consider the specific combinations with Malamud presented in this petition. Unlike here, the RLC IPR petition  
5 did not advance combinations of Malamud with Nakagawa or Nielsen. In fact, neither Nielsen nor Nakagawa was even mentioned in RLC’s petition, nor is either reference substantially the same as or cumulative of any reference relied upon in RLC’s petition. For example, as explained above, Nielsen discloses an HTML web page system with tooltips for displaying additional information when a cursor  
10 hovers over a displayed object. None of the prior art in RLC’s IPR petition related to the display of tooltips or how they could be implemented on web pages. Similarly, Nakagawa teaches downloading a complete application program from a server and then running it on a local machine (*see supra* § IX(A)(2)), which is fundamentally different from the teaching in U.S. Patent No. 5,920,311 (“Anthias,” the  
15 reference cited in RLC’s IPR petition) of running an application program on one computer while sending information for display to another computer.

**Second**, the Board in the RLC IPR expressly did not consider the specific argument concerning Malamud presented here for the claimed “specified content information”—an argument that appears in all three grounds of this Petition. (*See*,

e.g., *supra* §§ IX(C)(1)(Element 1[c][i]), IX(D)(1)(Element 1[c][i]), IX(E)(1)(Element 1[c][i]).) The RLC FWD explained as follows:

Our Decision on Institution noted the Petition’s reliance on Malamud’s message sent relating to a preview cursor to teach the “specified content information” of this claim limitation.... In the Reply, however, Petitioner argues that the “specified content information” includes any information to be displayed on the client, such as “all information necessary to display [a] website” and, more broadly, “all graphics data.”

...

[W]e agree with the Patent Owner that the Petition did not relate the “specified content information” broadly to all information transferred, but rather specifically to information in a message concerning the display of an information cursor.

...

[T]his argument, that the “specified content information” is taught or suggested ... other than Malamud’s information cursor message data, was not made in the Petition, and, ***thus, we do not consider it to be part of the case for unpatentability in the Petition.***

*Ralph Lauren Corp. v. Lexos Media IP, LLC*, IPR2018-01755, Paper 22 at 18-19, 25 (emphasis added). The Panel’s decision not to consider RLC’s argument resulted in the Board upholding the validity of claims 1, 27, 38, and 53 (*i.e.*, the Challenged Claims here). *Id.* at 45. This Petition thus gives the Board its first opportunity to properly consider the argument because, as set forth above, Malamud’s

“specified content information” includes not only instructions regarding the modified cursor, but rather an entire application program including content to be displayed on the screen by the application program. (*See, e.g., supra* §§ IX(C)(1)(Element 1[c][i]), IX(D)(1)(Element 1[c][i]), IX(E)(1)(Element 1[c][i]).) Because the Board has never previously considered this argument, discretionary denial under § 325(d) would be inappropriate.

This Petition thus presents an opportunity for the Board to properly consider all the evidence that demonstrates the invalidity of the Challenged Claims. The Board should therefore decline to exercise discretion under 35 U.S.C. § 325(d).

*See Synthego Corp. v. Agilent Techs., Inc.*, IPR2022-00403, Paper 12 (PTAB May 31, 2022).

## **XI. CONCLUSION**

Petitioner has demonstrated a reasonable likelihood that it will prevail in challenging the patentability of the Challenged Claims. Petitioner therefore respectfully requests that the Board institute *inter partes* review on the '449 Patent and cancel claims 1, 27, 38, and 53 as unpatentable.

Dated: June 5, 2023

Respectfully submitted,

/ Daniel T. Shvodian /

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**LISTING OF CHALLENGED CLAIMS OF THE '449 PATENT**

**Claim 1**

**Element 1[Preamble]:** A server system for modifying a cursor image to a specific image having a desired shape and appearance displayed on a display of a remote user's terminal, said system comprising:

**Element 1[a]:** cursor image data corresponding to said specific image;

**Element 1[b]:** cursor display code, said cursor display code operable to modify said cursor image; and

**Element 1[c][i]:** a first server computer for transmitting specified content information to said remote user terminal,

**Element 1[c][ii]:** said specified content information including at least one cursor display instruction indicating a location of said cursor image data, said cursor display instruction and said cursor display code operable to cause said user terminal to display a modified cursor image on said user's display in the shape and appearance of said specific image,

**Element 1[c][iii]:** wherein said specified content information is transmitted to said remote user terminal by said first server computer responsive to a request from said user terminal for said specified content information, and wherein said specified



content information further comprises information to be displayed on said display of said user's terminal,

**Element 1[c][iv]:** said specific image including content corresponding to at least a portion of said information to be displayed on said display of said user's terminal, and wherein said cursor display code is operable to process said cursor display instruction to modify said cursor image to said cursor image in the shape and appearance of said specific image in response to movement of said cursor image over a display of said at least a portion of said information to be displayed on said display of said user's terminal, and wherein said specific image relates to at least a portion of said information to be displayed on said display of said remote user's terminal.

### **Claim 27**

**Element 27[Preamble]:** A server system for modifying a cursor image to a specific image having a desired shape and appearance displayed on a display of a remote user's terminal, said system comprising:

**Element 27[a]:** cursor image data corresponding to said specific image;

**Element 27[b]:** cursor display code, said cursor display code operable to modify said cursor image; and

**Element 27[c][i]:** a first server computer for transmitting specified content information to said remote user terminal,

**Element 27[c][ii]:** said specified content information including at least one cursor display instruction indicating a location of said cursor image data, said cursor display instruction and said cursor display code operable to cause said user terminal to display a modified cursor image on said user's display in the shape and appearance of said specific image,

**Element 27[c][iii]:** wherein said specified content information is transmitted to said remote user terminal by said first server computer responsive to a request from said user terminal for said specified content information, and wherein said specified content information further comprises information to be displayed on said display of said user's terminal,

**Element 27[c][iv]:** said specific image including content corresponding to at least a portion of said information to be displayed on said display of said user's terminal, and wherein said cursor display code is operable to process said cursor display instruction to modify said cursor image to said cursor image in the shape and appearance of said specific image in response to movement of said cursor image over a specified location on said display of said user's terminal, and wherein said specific image relates to at least a portion of said information to be displayed on said display of said remote user's terminal.

**Claim 38:**

The server system in accordance with claim 27, wherein said specified content information is transmitted in the form of HTML files that define a web page.

**Claim 53**

**Element 53[Preamble]:** A method for modifying an initial cursor image displayed on a display of a user terminal connected to at least one server, comprising:

**Element 53[a]:** receiving a request at said at least one server to provide specified content information to said user terminal;

**Element 53[b]:** providing said specified content information to said user terminal in response to said request, said specified content information including at least one cursor display instruction and at least one indication of cursor image data corresponding to a specific image; and

**Element 53[c][i]:** transforming said initial cursor image displayed on said display of said user terminal into the shape and appearance of said specific image in response to said cursor display instruction, wherein said specified content information includes information that is to be displayed on said display of said user's terminal, wherein said specific image includes content corresponding to at least a portion of said information that is to be displayed on said display of said user's terminal, and

**Element 53[c][ii]:** wherein said cursor display instruction indicates a cursor display code operable to process said cursor display instruction to modify said cursor image to said cursor image in the shape and appearance of said specific image in response to movement of said cursor image over a display of said at least a portion of said information to be displayed on said display of said user's terminal, and

**Element 53[c][iii]:** wherein said specific image has a shape and appearance relating to said information to be displayed.

**CERTIFICATE OF WORD COUNT UNDER 37 CFR § 42.24(d)**

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petition for *Inter Partes* Review totals 13,786, excluding the parts exempted by 37 C.F.R. § 42.24(a). This word count was made by using the built-in word count function tool in the Microsoft Word software Version 2016 used to prepare the document.

Dated: June 5, 2023

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that true copies of the foregoing PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,118,449 and supporting materials (Exhibits 1001-1013 and Power of Attorney) have been served in their entirety this 5th day of June, 2023, by FEDERAL EXPRESS on Patent Owner at the correspondence address for the attorney of record for the '102 Patent shown in USPTO PAIR:

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