UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON.COM SERVICES LLC,

Petitioner,

v.

SMART SPEAKER LLC,

Patent Owner.

Patent No. 11,128,710
Filing Date: July 23, 2017
Issue Date: September 21, 2021

Inventors: Yehuda Binder and Benjamin Maytal
Title: SYSTEM AND METHOD FOR SERVER-BASED CONTROL

DECLARATION OF DR. MICHAEL SHAMOS IN SUPPORT OF PATENT OWNER'S RESPONSE

Case No. IPR2026-00145

I. INTRODUCTION

1. My name is Michael Shamos. I have been retained by counsel for Smart Speaker LLC ("Patent Owner") as a technical expert in connection with the proceeding identified above. I submit this Declaration in support of Patent Owner's Response ("POR") to the Petition ("Petition") for *inter partes* review of U.S. Patent No. 11,128,710 ("the '710 Patent"). Petitioner challenges Claims 1-29 (the "Challenged Claims"), constituting all the claims of the '710 Patent.

2. I make this Declaration based on my personal knowledge, education, professional experience, and my review of the materials identified in Section IV. If called to testify, I could and would testify competently to the matters set forth herein.

II. QUALIFICATIONS

3. A detailed description of my professional qualifications, including a listing of my specialties/expertise and professional activities and publications, is contained in my curriculum vitae, a copy of which is provided Appendix A. Below is a short summary of my professional qualifications.

4. I received an A.B. (1968) from Princeton University in Physics; a M.A. (1970) from Vassar College in Physics; a M.S. (1972) from American University in Technology of Management, a field that covers quantitative tools used in managing organizations, such as statistics, operations research and cost-benefit analysis; a M.S.

(1973), and M.Phil. (1974) and a Ph.D. (1974) from Yale University in Computer Science; and a J.D. (1981) from Duquesne University.

5. I currently hold the title of Distinguished Career Professor in the School of Computer Science at Carnegie Mellon University in Pittsburgh, Pennsylvania. I am a member of two departments in that School, the Software and Societal Systems Department and the Language Technologies Institute. I was a founder and Co-Director of the Institute for eCommerce at Carnegie Mellon from 1998-2004 and from 2004-2018 was Director of the eBusiness Technology graduate program in the Carnegie Mellon University School of Computer Science. From 2018-2026, I was Director of the M.S. in Artificial Intelligence and Innovation degree program at Carnegie Mellon. I am now Associate Director of that program.

6. I have taught graduate courses at Carnegie Mellon in Electronic Commerce, including eCommerce Technology, Electronic Payment Systems, Electronic Voting, Internet of Things, Electronic Payment Systems and eCommerce Law and Regulation, as well as Analysis of Algorithms. Since 2007 I have taught an annual course in Law of Computer Technology (now Computer and AI Law). I currently also teach Artificial Intelligence and Future Markets.

7. I am the author and lecturer in a 24-hour video course on Internet protocols and have taught computer networking, wireless communication, and Internet architecture since 1999.

8. From 2001-2021, I was a Visiting Professor at the University of Hong Kong, where I taught an annual course in Electronic Payment Systems. This was one of only a handful of graduate courses taught on this subject in the world.

9. I was the Director of Carnegie Mellon's graduate degree program in eBusiness Technology from 1999-2018 and am now a faculty member in the Privacy Engineering degree program at Carnegie Mellon. My course on Computer and AI Law is required for all students in that program, the M.S. in Artificial Intelligence and Innovation program and in the Societal Computing Ph.D. program.

10. From 1979-1987, I was the founder and president of two computer software development companies in Pittsburgh, Pennsylvania, Unilogic, Ltd. and Lexeme Corporation.

11. I am an attorney admitted to practice in Pennsylvania and have been admitted to the Bar of the U.S. Patent and Trademark Office since 1981. I have been asked to render opinions in this Declaration as a technical expert. I have not been asked to offer any opinions on patent law in this proceeding.

12. I am a named co-inventor on the following six issued patents relating to electronic commerce: U.S. Patent Nos. 7,330,839, 7,421,278, 7,747,465, 8,195,197, 8,280,773, and 9,456,299.

13. I have previously served as an expert in over 410 cases concerning computer technology.

14. I am aware of contemporaneous litigation involving Petitioner and the Patent Owner in a case captioned *Smart Speaker LLC v. Amazon.com Services LLC,* Case No. 2:25-cv- 00707 (E.D. Tex.) (the "Litigation").

15. In this Declaration, all emphasis has been added unless otherwise noted

III. COMPENSATION

16. I am being compensated at the rate of $600 per hour for my work in this matter, plus reimbursement of reasonable expenses. My compensation does not depend on the substance of my opinions or on the outcome of this proceeding or any related proceeding. I have no financial interest in Patent Owner or the challenged patent. It is conceivable that I may own mutual funds whose portfolios include stock in Petitioner. If this is the case, the value of such holding would not constitute a material part of my net worth.

IV. MATERIALS CONSIDERED

17. In forming the opinions set forth in this Declaration, I have reviewed and considered, among other things: the '710 Patent (EX1001) and its prosecution

history (EX1003); the Petition (Paper 2); the Declaration of Dr. Henry Houh (EX1002); Williams (EX1004); Howard (EX1005); Doherty (EX1006); Wittenberg (EX1007); Gruber (EX1008); Benesty (EX1009); Chatterjee (EX1011); Rosenberger (EX1012); Rossing (EX1013); Goldsmith (EX1035); Sinclair (EX1017); Van der Meulen (EX1018); the other exhibits cited in the Petition; Patent Owner's Preliminary Response (Paper 9); and the other materials cited in this Declaration.

V. LEGAL STANDARDS

18. Although I am an attorney, I offer no legal opinions herein. Counsel has explained to me certain legal principles, summarized below, which I have applied in forming the opinions set forth in this Declaration.

19. I understand that, in an instituted *inter partes* review, the petitioner bears the burden of proving unpatentability by a preponderance of the evidence, and that the burden of persuasion remains on the petitioner throughout the proceeding and never shifts to the patent owner.

20. I understand that a patent claim is unpatentable as obvious under 35 U.S.C. § 103 only if the claimed subject matter, as a whole, would have been obvious at the time of the invention to a person of ordinary skill in the art ("POSITA"), in view of the scope and content of the prior art, the differences between the prior art

and the claims, the level of ordinary skill in the art, and any objective indicia of nonobviousness.

21. I understand that a conclusion of obviousness requires an articulated reason, supported by rational underpinning, why a POSITA would have combined items of prior art or modified the prior art in the manner asserted, with a reasonable expectation of success; that conclusory assertions are not sufficient; that knowledge of a problem or of a goal is not the same as a motivation to combine particular references in a particular way; and that it is improper to use the challenged claims as a roadmap for reconstructing the invention from the prior art—that is, to rely on hindsight.

22. I understand that a petition for *inter partes* review must specify where each element of the challenged claim is found in the prior art patents or printed publications relied upon in the stated ground, and that general knowledge, expert testimony, and references outside the stated ground may not be used to supply a claim limitation that is missing from the ground's references.

VI. LEVEL OF ORDINARY SKILL IN THE ART

23. Dr. Houh opines that a POSITA "would have a bachelor's degree in electrical engineering, computer engineering, or equivalent field, and two years of experience working on remote device control and/or networked devices," and that

"[a]n advanced graduate degree in the disciplines cited above may make up for the work experience indicated above." EX1002, ¶ 48.

24. For purposes of this Declaration, I have applied Dr. Houh's proposed characterization of the level of skill of a POSITA. I satisfy that characterization, and did so as of the '710 Patent's earliest claimed priority date. My opinions in this Declaration would not change under any reasonable alternative formulation of the level of ordinary skill.

VII. CLAIM CONSTRUCTION

25. I understand that the Petition contends that no claim term requires express construction. Pet. at 5; EX1002, ¶ 50. In my analysis, I have given all claim terms their plain and ordinary meaning as a POSITA would have understood them in light of the '710 Patent's intrinsic evidence. None of my opinions depends on any specialized claim construction.

VIII. THE '710 PATENT

26. The '710 Patent, titled "System and Method for Server-Based Control," issued on September 21, 2021, from an application filed on July 23, 2017, and claims priority to several provisional applications, the earliest of which was filed on January 9, 2012. I have been asked, for purposes of this Declaration, to assume that the priority date of the '710 Patent is January 9, 2012, and that pre-AIA 35 U.S.C. §§ 102 and 103 apply in this proceeding.

27. Independent Claim 1 recites "[a] method for operating multiple actuators in response to captured human voice data," for use with a "client device" and a "controlled device" in a building, each communicating over a wireless network, and "an Internet-connected server device external to the building." EX1001, Claim 1. Claim 1's body recites two parallel voice-command sequences. In the first, the client device captures "a first human voice data" and sends it to the server via the wireless network; the server receives it "over the Internet" and processes it; and, "responsive to the processing," the server sends "a first message" to the client device over the Internet, which the client device receives and to which it responds by "operating a first actuator in the client device." In the second sequence, the client device captures "a second human voice data" and sends it to the server, which receives and processes it; then, "responsive to the processing," the server sends "a second message" "to the controlled device over the Internet"; the controlled device receives the second message via the wireless network; and the method concludes with "operating a second actuator in the controlled device in response to the received second message." EX1001, Claim 1.

28. The architecture required by Claim 1 is therefore specific: an Internet-connected server located outside the building generates two distinct messages, each responsive to the server's processing of captured human voice data, and sends each

message over the Internet to a different device inside the building—the first message to the client device that captured the voice data, and the second message to a separate controlled device—with each message causing the operation of an actuator in its recipient device. Claims 2–29 depend, directly or indirectly, from Claim 1.

29. In each claimed sequence, the "message" is a communication generated by the server in response to the server's processing of the captured human voice data, and the message is what causes the device that receives it to operate its actuator: the client device operates its actuator "in response to the received first message," and the controlled device operates its actuator "in response to the received second message." EX1001, Claim 1. From a technical standpoint, the claimed messages are therefore not merely data made available on a network; each is the operative instruction in a server-to-device control path.

30. The second sequence adds a further architectural requirement: the server's "second message" is directed to a different device than the one that received the first message. The client device captures the "second human voice data," but the "second message" is sent "to the controlled device over the Internet," is received by the controlled device "via the wireless network," and results in "operating a second actuator in the controlled device." EX1001, Claim 1. In my opinion, this three-party

path—capturing device, external server, and separately addressed controlled device—is a defining feature of the claimed method.

31. The specification identifies a display among its exemplary actuators: "[a]n actuator may be a display for presentation of visual data or information, commonly on a screen." EX1001, 25:33–38. This confirms that the claimed actuators encompass ordinary output components of networked devices, operated in response to the messages sent by the server.

IX. OVERVIEW OF THE CITED PRIOR ART

A. Williams (EX1004)

32. Williams U.S. Patent Pub. No. 2012/0198339 (EX1004) describes an audio-based system for a home in which an interface device 116 captures audio and conveys audio-based information over a network 114 to an application engine 118 and cloud-based applications 120. EX1004, [0015], [0021]–[0022], [0052]. The applications "may use the information from the event notifications 216 to initiate or customize services 218 on behalf of users," and "[s]uch services may be provided through any of the media devices 106 located in the home, as well as through other application devices 220." EX1004, [0036].

33. Williams illustrates its "services 218" with a series of examples: placing a grocery order ([0044]); ordering movie tickets ([0045]); identifying songs ([0046]–[0047]); answering spoken questions—Williams gives the example

"What's the recipe for deviled eggs?" and states that the system "can provide audio answers to spoken questions" ([0048]); requesting directions ([0049]); and inquiring about flights ([0050]). In each example, the "service" consists of delivering informational content to the user through some device—displaying results, playing audio, presenting options. "Informational content" itself (*e.g.*, the data comprising audio content), however, is technically distinct from a "message" that instructs a controlled device how to use that data to operate an actuator (*e.g.*, play audio data via a speaker). A control message must be addressed to a specific device; must carry an instruction in a form that the receiving device's hardware or software is designed to act on; and must produce actuation without user involvement. Williams describes none of this.

34. Williams's only reference to controlling devices is a single aspirational sentence pair in paragraph [0051], which states that an application "might also be designed to allow a user to control various on-premises devices and equipment" and "may accept spoken commands from a user regarding on-premises devices, and may respond by interacting with such devices through available network connections." EX1004, [0051]. Williams does not disclose *how* that potential control would be accomplished or achieved using any specific network architecture, or specific use of instruction-based control messages, etc.

35. In my experience, the difference between stating that a system "allow[s] a user to control" devices and disclosing an implementation that actually does so is significant. Server-generated device control requires concrete design decisions—message formats, device addressing, and command semantics that the controlled device's firmware or software is built to execute—none of which Williams provides.

B. Howard (EX1005)

36. Howard U.S. Patent No 7,062,339 (EX1005) describes "a portable device for communicating with a computer server, especially a home server, which provides for and/or controls various activities in a home." EX1005, 1:7–14. The portable device "allows the operator to program and control the home gateway from essentially any area of the home." EX1005, 1:55–58.

37. Howard's server 200 is described as "forming part of the home gateway," and FIG. 6 places the server between two distinct pathways: the "home network 304," over which the server communicates with and controls household appliances, and "the Internet 305," through which the server reaches outside resources such as shopping and search websites. EX1005, 3:41–48, 8:40–55, 9:50–56, FIG. 6. Simply put, the server of Howard does not capture any human voice "over the Internet," as required by Claim 1, the sole independent claim.

38. In Howard's workflows, device commands are processed by the server, which then issues control signals over the local network—for example, the server "generates control signals, which are transmitted to the VCR via the home network 304." EX1005, 10:64–11:5. In Howard, the Internet is the server's path to the outside world, while the home network is the server's path to the controlled devices inside the home.

C. Doherty (EX1006)

39. Doherty (EX1006) is a Cisco Press consumer textbook, *Wireless Home Networking Simplified*, that teaches readers how to set up a home wireless network with commercially available equipment. Doherty is applied in Grounds 9-16. Doherty teaches that, in a home wireless LAN, "the computer can send and receive information to and from other computers on the LAN or to and from the Internet by transmitting over wireless to the wireless router (or access point)," and that "[t]he wireless router acts as the central communication routing point." EX1006, 11. Doherty describes no remote server, and not even any in-home server, for controlling home devices.

D. Wittenberg (EX1007)

40. Wittenberg U.S. Patent No. 7,529,677 (EX1007) is cited in Grounds 2 and 10, against dependent Claim 2. Pet. at 6–7. Wittenberg describes a technique in which an audio command captured at a local site is transmitted to a remote site for

processing, and in which the remote processor performs voice recognition "to determine whether the audio signal has been supplied by an authorized user." EX1007, Abstract. The passage the Petition principally relies on describes that operation: the voice recognition processor "analyzes audio signals received at the remote processor to determine whether the person issuing the voice command is authorized to issue the command," by "comparing the characteristics (e.g., frequency spectrum, speech patterns, etc.) of the audio signal to stored voice information." Pet. at 37–38 (quoting EX1007, 5:61-6:6). Wittenberg thus adds an authorization check to voice-command processing.

E. Gruber (EX1008)

41. Gruber U.S. Patent Pub. No. 2012/0265528 (EX1008) is cited in Ground 3 against dependent Claims 3–4 and 10–11 and in Ground 11 against dependent Claims 3–4. Pet. at 6–7. Gruber describes a virtual assistant that "uses context information to supplement natural language or gestural input from a user." EX1008, Abstract. Gruber's example sources of context include device sensors—e.g., "light sensor, thermometer"—and "signatures of connected networks," such as "MAC addresses of network access points." EX1008, [0218]–[0225]. In Gruber, context affects interpretation of the user's input.

F. Benesty (EX1009)

42. Benesty (EX1009), which comprises excerpts of the *Springer Handbook of Speech Processing*, is cited in Grounds 4 and 12, against dependent Claims 7–8. Pet. at 6–7. The Petition quotes Benesty's observations that "microphone arrays have the ability to offer directional gains that can significantly improve the quality of signal pickup in reverberant and noisy environments," and that "beam scanning and time delay estimation (TDE)-based localization methods are the two most widely used approaches" for "speech source localization." Pet. at 44–45 (quoting EX1009, 1021, 1044). Benesty surveys techniques that existed in the field, but does not describe any particular device configuration.

G. Goldsmith (EX1035)

43. Goldsmith (EX1035), which comprises excerpts of the textbook *Wireless Communications*, is cited in Ground 5 against dependent Claims 12–15 and in Ground 13 against dependent Claims 12 and 14–15. Pet. at 6–7. The Petition quotes Goldsmith's survey of wireless protocols, including that the Bluetooth and Zigbee specifications are "designed to be compliant with the IEEE 802.15 standards," and its descriptions of the IEEE 802.11 family, the ISM radio bands, and cellular standards. Pet. at 46–51 (quoting EX1035, 601-602).

H. Chatterjee (EX1011)

44. Chatterjee U.S. Patent Pub. No. 2013/0052946 (EX1011) is cited in Ground 6 against dependent Claims 17–22 and in Ground 14 against dependent Claim 22. Pet. at 6–7. Chatterjee describes "a system and method for providing home automation using a mobile device," in which household appliances—e.g., ovens, dishwashers, refrigerators, and HVAC equipment—are controlled "via a device controller integrated into the appliance devices" and directed from the user's mobile device. Pet. at 51–52 (quoting EX1011, Abstract).

I. Rosenberger (EX1012)

45. Rosenberger U.S. Patent No. 8,340,975 (EX1012) is cited in Grounds 7 and 15, against dependent Claims 24–25. Pet. at 6–7. Rosenberger concerns "speech-recognizing control devices that respond to oral commands from a system user to produce a desired effect or result," in which the device itself recognizes a trigger phrase and commands against "a known vocabulary or grammar stored in the speech pattern memory 14," and in which a "multi-colored LED status light 34" indicates the device's states and modes. Pet. at 54–56 (quoting EX1012, 1:7-13, 8:8-16, 8:20-32).

J. Rossing (EX1013)

46. Rossing (EX1013), which comprises excerpts of the *Springer Handbook of Acoustics*, is cited in Grounds 8 and 16, against dependent Claims 9

and 26–28. Pet. at 6–7. The Petition draws from Rossing the physics of microphones and loudspeakers—for example, that "[c]ommon to virtually all microphones ever made is a diaphragm," and that in a loudspeaker "the electrical energy is converted to mechanical energy, specifically the movement of a diaphragm." Pet. at 57–59 (quoting EX1013, 757-759, 763).

X. OPINIONS REGARDING GROUNDS 1–8

47. Limitations 1[L], 1[M], and 1[N] of Claim 1 require, respectively, "sending a second message, by the server to the controlled device over the Internet"; "receiving, by the controlled device via the wireless network, the second message"; and "operating a second actuator in the controlled device in response to the received second message." EX1001, Claim 1. The Petition maps the claimed "second message" to Williams's "services 218." Pet. at 29–32. In my opinion, that mapping fails because Williams discloses no server-generated "message," directed to a controlled device, that causes the operation of an actuator in that device.

48. Williams's "services 218" are the substance of the service itself—content delivered to and experienced by the user—not control messages sent to a controlled device. Williams's examples confirm this: interpreting a spoken grocery order and recording "a shopping list that the user can view on their smartphone" (EX1004, [0044]); identifying a song and "provid[ing] information about related

articles, offer[ing] samples, suggest[ing] related music and playlists, or present[ing] information allowing the user to purchase individual music tracks" (EX1004, [0047]); and answering a question by "emailing or otherwise providing a recipe" (EX1004, [0048]). Williams's FIG. 2 is consistent with this reading: its arrows from applications 120 to media devices 106 and application devices 220 depict the general availability of services through devices in the home, not a control message generated in response to a voice command, addressed to a particular controlled device, and causing that device to operate an actuator. EX1004, [0036], FIG. 2. In my opinion, nothing in these disclosures involves "operating a second actuator in the controlled device in response to the received second message."

49. The Petition's treatment confirms that the alleged control-message concept comes from outside Williams. To connect "services 218" to the claimed "second message," the Petition inserts the parenthetical "(e.g., a control message)" and asserts that this would be "consistent with common implementations," citing Van der Meulen (EX1018, 3:19–22), Wittenberg (EX1007, Claim 1), and Chatterjee (EX1011, [0012])—references that are not part of Ground 1. Pet. at 31–32. Dr. Houh's corresponding opinion likewise rests on what he says "was common knowledge" and on Van der Meulen's coffee-maker control signal, not on any disclosure of Williams. EX1002, ¶¶ 142, 148. In my opinion, the need to reach for

other references and for generalized knowledge is itself confirmation that Williams does not disclose the claimed "second message."

50. Paragraph [0051] of Williams does not fill the gap. It states only that an application "might also be designed to allow a user to control various on-premises devices and equipment" and "may respond by interacting with such devices through available network connections." EX1004, [0051]. That passage describes what the system might do; it says nothing about how. It is silent on whether the server generates any control "message," on how any such message would reach a specific controlled device, and on what actuation might result. Further, at best, Williams has the user controlling various devices through applications, while in the '710 Patent, the server does the controlling based on human voice input.

51. Precisely the features that Claim 1 requires are missing from Williams: a "second message" generated by the server "responsive to the processing" of "captured second human voice data," sent by the server "to the controlled device over the Internet," received by the controlled device "via the wireless network," and causing the controlled device to operate an actuator. In my opinion, a statement that a system "may respond by interacting with such devices through available network connections" identifies no message and supplies none of that specific server-to-controlled-device communication. The only device interaction Williams actually

describes is the provision of "services 218," which, as explained above, is informational content.

52. For these reasons, it is my opinion that Williams does not disclose, and the references in this Ground do not render obvious, limitations 1[L], 1[M], and 1[N]. Ground 1 challenges Claims 1, 5–6, 16, 23, and 29, each of which includes all limitations of Claim 1, while Grounds 2–8 add secondary references directed to dependent claims. None of the secondary references is cited for, or in my opinion remedies, Williams's failure to disclose the "second message" limitations. Grounds 1–8 therefore fail as to every claim they challenge.

XI. OPINIONS REGARDING GROUNDS 9–16

53. Claim 1 requires "an Internet-connected server device external to the building," and it requires that the server's "first message" and "second message" each be sent "over the Internet." EX1001, Claim 1. These limitations are connected: the server's communications with the home devices traverse the Internet only if the server sits outside the building. Grounds 9–16 rest on the Howard-Doherty combination, and Dr. Houh's mappings for these limitations presuppose that Howard's server 200 is "a remote server in the cloud." EX1002, ¶ 392. In my opinion, that premise is not disclosed by either reference. Howard describes server

200 as a "home server." EX1005, 1:9. No cloud is shown, or even mentioned, in Howard.

54. Howard places its server inside the home. The server 200 "form[s] part of the home gateway," and FIG. 6 shows it between the "home network 304," through which it controls household appliances, and "the Internet 305," through which it reaches outside resources. EX1005, 3:41–48, 8:40–55, 9:50–56, FIG. 6. Every device-control example in Howard transmits control signals over the local network—for example, the server "generates control signals, which are transmitted to the VCR via the home network 304." EX1005, 10:64–11:5; *see also* EX1005, 11:20–12:14 (FIG. 9 television workflow). In Howard, the Internet is the path to the outside world; the home network is the path to the controlled devices. The server of Howard is not an Internet server: "Both the home network 304 and the Internet websites 305 are accessible by the server 200, 230." EX1005, 8:40-42.

55. I have considered the Petition's observation that "Howard mentions 'home server' in some instances" and its argument that "Howard does not limit its system to a server at the user's home." Pet. at 79 (citing EX1002, ¶ 359). In my opinion, the absence of an express limitation is not a disclosure. Nothing in Howard describes, depicts, or suggests placing the device-control server outside the building,

and Howard's consistent description of the server as part of the home gateway points in the opposite direction.

56. Doherty does not supply the missing external server. Doherty is a consumer textbook on setting up home wireless networks; the wireless router it describes is an intermediary that directs traffic between home computers and between the home and the Internet. EX1006, 11. A router is not a server (for example, routers do not process human voice data), and Doherty nowhere suggests moving a home-gateway server off premises or describes any remote-server architecture for controlling home devices.

57. The Petition's stated rationale for relocating the server comes from outside the Ground. For the proposition that "the benefits for having a server in the cloud perform resource-intensive tasks such as speech processing were well-known," the Petition quotes Wittenberg—"By performing complex speech and voice recognition processing remotely, the local device can have fewer components, be smaller, use less power, and cost less than a device that performs these operations locally"—and supports the point with citations to Williams and Gruber. Pet. at 77 (quoting EX1007, 8:26–32; citing EX1004, [0022], Figure 2; EX1008, [0080], [0100]–[0102], [0110]–[0117]). Wittenberg, Williams, and Gruber are not Ground 9 references. Even if it was known to process human voice data remotely, the

references outside Ground 9 do not teach having a remote Internet server processing voice and sending a control message to a controlled device.

58. The quoted rationale also does not support the proposed modification as a technical matter. It concerns where the speech processing occurs, not where a device-control server resides—and Howard already assigns the resource-intensive processing to its local server: the analysis of the audio data signals "is assigned to the server 200," so that "the circuit components and the power requirements of the portable device 10 are minimized." EX1005, 7:59–65. Howard likewise already contemplates broadband Internet connectivity alongside its local control server. EX1005, 1:18–22, 9:50–52. In my opinion, a POSITA reading Howard and Doherty would find in them no reason to redesign Howard by exporting its control server to the cloud; the proposed relocation reflects the '710 Patent's claims rather than anything taught by the references.

59. Because the combination discloses no server "external to the building," it necessarily fails each limitation requiring communication between the server and the home devices "over the Internet": the limitations requiring that the server receive the captured first and second human voice data "over the Internet," and the limitations requiring that the server send the "first message" and the "second message" "over the Internet." In Howard, the portable device communicates with

the in-home server, and the server sends control signals to the controlled devices through the "home network 304." EX1005, 3:41–48, 10:64–11:5, FIG. 6. None of those communications traverses the Internet.

60. Ground 9 challenges Claims 1, 5–6, 10–11, 13, 16–21, 23, and 29, each of which incorporates the limitations above, and Grounds 10–16 add secondary references directed to dependent-claim features. None of those references is cited for, or in my opinion remedies, the combination's failure to disclose a server "external to the building" or the "over the Internet" communications. Grounds 9–16 therefore fail as to every claim they challenge.

61. Further, Claim 29 is only challenged in Ground 9. Claim 29 depends from Claim 27, which depends from Claim 1. While the Petition challenges Claim 29 (Pet. at 101), the Petition challenges Claim 27 only in Ground 8. Therefore, I understand the Petition to be defective as to Claim 29. In my opinion, the prior art cited for Ground 9 does not disclose the limitations of Claims 27 or 29.

XII. OPINIONS REGARDING GROUNDS 2 AND 10

62. Claim 2 requires that "the processing"—Claim 1's "processing, by the server, the captured first human voice data"—comprise "performing a voice recognition algorithm for identifying the voice of a specific person." EX1001, Claims 1–2. In the field, determining who is speaking and determining whether a

speaker is authorized are different operations: identifying a speaker means determining which specific person, among possible speakers, produced the voice, whereas an authorization or verification check needs only a binary result—that the voice does, or does not, match stored voice information for the set of authorized users. A system can perform the latter without ever determining, outputting, or using the identity of the particular person speaking. Claim 2, as I read it, requires the former: an algorithm "for identifying the voice of a specific person."

63. Wittenberg discloses the authorization operation, not the claimed identification. Its stated function, in the Abstract and in each of its independent claims, is "to determine whether the audio signal has been supplied by an authorized user." EX1007, Abstract, Claims 1, 14, 17, and 24. The passage the Petition quotes describes the same determination: the voice recognition processor "analyzes audio signals received at the remote processor to determine whether the person issuing the voice command is authorized to issue the command," by "comparing the characteristics (e.g., frequency spectrum, speech patterns, etc.) of the audio signal to stored voice information to determine whether the audio signal voice matches that of an authorized user." Pet. at 37–38 (quoting EX1007, 5:61-6:6). A match tells Wittenberg's system that the speaker is one of its authorized users; it does not identify which specific person is speaking, and I find no disclosure in Wittenberg of

any use or output of a speaker's individual identity determined from their speech. Authorization might well be done by IP address or a password. In fact, the identification disclosed in Wittenberg is identification of spoken command, not the identity of the speaker. The Petition's combination reflects the same limit: it would "determine if the person issuing the voice data is authorized to make the command." Pet. at 38. In my opinion, Wittenberg does not disclose, and the proposed combinations do not supply, Claim 2's "voice recognition algorithm for identifying the voice of a specific person."

64. Ground 10's additional citation to Howard does not fill the gap because Howard's voice-print check is not part of "the processing" recited in Claim 1. The Petition maps Claim 1's processing element to Howard's data analyzer 202, which, "utilizing the speech recognition software, functions to interpret the language fragment" received from the portable device. Pet. at 85. The voice-print matching cited for Claim 2 is a different operation in a different part of Howard: it belongs to the activity guide of FIG. 13(a) and runs only "upon completion of an order that requires payment," after the server prompts the operator—"Please tell me your name"—whereupon "voice print matching task 504 is then executed so as to compare the voice print of the operator, which is forwarded by the portable device 10, with the operator's voice print that was prestored in memory C 303" during an

initialization process. EX1005, 14:50–15:3; Pet. at 102. In my opinion, a payment-authentication step performed on a separately prompted name utterance, using a voice print forwarded by the client device, is not a voice recognition algorithm performed as part of the server's processing of the captured voice command.

XIII. OPINIONS REGARDING GROUNDS 3 AND 11

65. Claim 3 requires that the client device comprise "a sensor that outputs sensor data that responds to a physical phenomenon," that the sensor data be sent to the server, and that "the first message is sent by the server in response to the sensor data." EX1001, Claim 3. The Petition's Gruber citations address the first two requirements only. In Gruber, sensor-derived context serves "to supplement natural language or gestural input from a user," to "clarify the user's intent," and to "reduce[] the need for the user to provide excessive clarification input." EX1008, Abstract. From a technical standpoint, using context to assist the interpretation of a voice command is not a disclosure that the server's responsive message is itself sent "in response to the sensor data," and I find no disclosure in Gruber, and no explanation in the Petition or in Dr. Houh's Declaration, that the combined system's "first message" would be sent in response to the sensor data as Claim 3 requires.

66. Claim 4 requires that the sensor be "a thermoelectric sensor that responds to a temperature or to a temperature gradient of an object using conduction,

convection, or radiation," or "a photoelectric sensor that responds to a visible or an invisible light or gamma rays." EX1001, Claim 4. These are specific sensor constructions defined by their operating principles. Gruber's cited disclosure is a generic list—"light sensor, thermometer, . . . and the like"—providing "the current light level, temperature and other environmental measures." Pet. at 42 (quoting EX1008, [0225]); EX1008, [0222]. A "light sensor" is not a disclosure of a photoelectric sensor responsive to invisible light or gamma rays; the terms identify functions, not the claimed elements. The only support the Petition offers for the claimed sensor types is an assertion of what a POSITA would have understood, resting on Fraden (EX1029)—a reference that is not part of any Ground. Pet. at 42.

67. Claim 10 requires that the client or controlled device be addressable "using an address stored in a volatile or non-volatile memory of the respective device for uniquely identifying the respective device in the network," and Claim 11 recites specific address types. EX1001, Claims 10–11. Gruber's cited passage describes "signatures of connected networks," including "MAC addresses of network access points," observed by the device as contextual information about its surroundings. EX1008, [0224]. For the claimed stored, device-identifying addresses, the Petition relies on an assertion of what a POSITA would have understood and on Doherty,

Roberts, Yadav, and Shimonski—none of which is a Ground 3 reference. Pet. at 42–43. I find no disclosure of the claimed addressing in Gruber itself.

XIV. OPINIONS REGARDING GROUNDS 4 AND 12

68. Claim 8 requires that the multiple microphones of Claim 7 be "arranged as a directional microphones array operative to estimate a number, magnitude, frequency, Direction-Of-Arrival (DOA), distance, or speed of a phenomenon impinging the microphones array." EX1001, Claim 8. The Benesty excerpts the Petition quotes are general statements: that "microphone arrays have the ability to offer directional gains that can significantly improve the quality of signal pickup in reverberant and noisy environments," and that "beam scanning and time delay estimation (TDE)-based localization methods are the two most widely used approaches" for "speech source localization." Pet. at 44–45 (quoting EX1009, 1021, 1044). An array's estimation capability is an engineered property: it requires the array geometry, the signal-processing algorithms, and the processing resources to compute the recited parameters. The Petition's proposed combination goes no further than placing "multiple microphones as taught by Benesty" in the client device "to capture and process human voice data." Pet. at 45–46. In my opinion, capturing voice with several microphones does not make the device "operative to estimate"

the recited parameters, and neither the Petition nor Dr. Houh identifies any configuration of the combined system that would make it so.

XV. OPINIONS REGARDING GROUNDS 5 AND 13

69. Claim 12 requires that "the wireless network" of Claim 1 be a Bluetooth or Zigbee WPAN. EX1001, Claim 12. Bluetooth and Zigbee are short-range personal-area-network protocols; for a WPAN to serve as Claim 1's "wireless network," the home devices must reach, and be reached by, the Internet-connected server through that WPAN, which requires a bridging device connecting the WPAN to the Internet. The Goldsmith excerpts the Petition quotes state certain protocol properties—for example, that the Bluetooth and Zigbee specifications are "designed to be compliant with the IEEE 802.15 standards." Pet. at 47 (quoting EX1035, 601-602). The bridging link the claim requires is supplied, in the Petition, by Tran '533, Johnson, Tran '731, Ji, and Lim—references outside both Grounds. Pet. at 47–48. I find no disclosure in Williams, Howard, Doherty, or Goldsmith of a system in which a Bluetooth or Zigbee WPAN is the network connecting the home devices to an Internet-connected server.

70. For Claims 13–15, the Petition again relies on excerpts from a survey, and for Claim 15—which requires that the wireless network itself be a "cellular telephone network"—it adds that "home appliances with cellular connectivity were

well-known," citing Wang, another reference outside both Grounds. Pet. at 48–51. The Petition's rationale for all of these Claims is that it "would have been obvious to try" the protocols in Goldsmith's survey. Pet. at 48, 106. I see no design need or problem identified in Williams or Howard for which the recited network types are a finite set of identified solutions; the Petition simply walks through the Claims' own lists of protocols. I also note that Ground 13's assertion that "Goldsmith discloses claims 12 and 14-15" is cited to "EX1006, 229-230." EX1006 is Doherty, not Goldsmith, and I could not locate the asserted Goldsmith disclosures from that citation. Pet. at 105–106.

XVI. OPINIONS REGARDING GROUNDS 6 AND 14

71. Claims 17–22 specify the appliance in which "the controlled device" is integrated—food storage, handling, or preparation; heating; refrigeration and kitchen appliances; HVAC; temperature control; and cleaning. EX1001, Claims 16–22. Chatterjee discloses that appliances of these kinds exist in a home-automation system, but in the Claims the appliance houses "the controlled device"—the device that must receive the server's "second message" "via the wireless network" and operate "a second actuator . . . in response to the received second message." Chatterjee's appliances are controlled "via a device controller integrated into the appliance devices" directed from the user's mobile device—"a system and method

for providing home automation using a mobile device"—not by a server's Internet-transmitted message. Pet. at 51–52 (quoting EX1011, Abstract). Neither the Petition nor Dr. Houh explains how Chatterjee's appliances would be integrated into Williams's architecture, in which the applications deliver informational "services 218," or into Howard's, in which control signals travel over the local home network from an in-home server. In my opinion, no reference in either Ground shows a server's "second message" operating an actuator in any of the recited appliances.

XVII. OPINIONS REGARDING GROUNDS 7 AND 15

72. Claim 24 requires that "the first actuator"—which Claim 1 operates "in the client device in response to the received first message"—be "an electric light source," and Claim 25 recites species such as LEDs. EX1001, Claims 24–25. In Rosenberger, the "multi-colored LED status light 34" belongs to a self-contained speech-recognizing control device that performs its own recognition: "[u]pon receiving and recognizing a speech trigger phrase . . . the device beeps, changes its status light 34 or plays a prerecorded or synthesized audio message," prompting the user to speak commands "from a known vocabulary or grammar stored in the speech pattern memory 14." Pet. at 54–56 (quoting EX1012, 8:8-16, 8:20-32). Rosenberger's light thus indicates the device's own, locally determined states and modes. I find no disclosure in Rosenberger, and no explanation in the Petition or in

Dr. Houh's Declaration, that the light operates "in response to the received first message" sent by a remote server as Claims 24–25, which depend from Claim 1, require.

XVIII. OPINIONS REGARDING GROUNDS 8 AND 16

73. Claim 9 recites specific microphone configurations and operating principles—"an omnidirectional, unidirectional, or bidirectional microphone that is based on the sensing an incident sound-based motion of a diaphragm or a ribbon," or "a condenser, an electret, a dynamic, a ribbon, a carbon, or a piezoelectric microphone." EX1001, Claim 9. Neither Williams nor Howard discloses anything about the configuration of its microphone. The Rossing excerpts the Petition quotes—for example, that "[c]ommon to virtually all microphones ever made is a diaphragm," along with descriptions of ribbon, condenser, electret, carbon, and piezoelectric types—establish that these configurations existed. Pet. at 57–58 (quoting EX1013, 757-759, 309). They do not disclose which construction the combined system would use, and I find nothing in the Petition or in Dr. Houh's Declaration identifying one or explaining why a POSITA would select it.

74. Claim 26 requires that "the first actuator is a motion actuator that causes linear or rotary motion." EX1001, Claim 26. The Petition's theory is that the primary reference's speaker is the claimed motion actuator because, as Rossing describes, in

a loudspeaker "the electrical energy is converted to mechanical energy, specifically the movement of a diaphragm." Pet. at 59 (quoting EX1013, 763). In my opinion, describing the physics by which a speaker produces sound does not transform the speaker into a "motion actuator" as claimed. The '710 Patent's claims treat these as distinct actuator categories—Claim 26 recites a "motion actuator," while Claim 27 recites a "sounder"—and on the Petition's reading every sounder, which produces sound precisely by moving a diaphragm or equivalent element, would also be a motion actuator, collapsing the two categories. The remaining Rossing citations—which disclose that loudspeakers exhibit "linear motion" and that a moving-coil loudspeaker's coil can "move axially"—likewise describe how a speaker produces sound. Pet. at 59 (quoting EX1013, 903, 18). The Petition identifies no other candidate motion actuator in either combination.

75. For Claim 27's "sounder," the Petition asserts that "a POSITA would have understood that a speaker is a sounder for converting an electrical energy to sound waves," resting in part on Sinclair (EX1017)—a reference outside both Grounds. Pet. at 59–60. For Claim 28's specific constructions, the Petition offers Rossing's general observation that "many of the same transduction methods that have been used in microphones have at least been tried for loudspeakers including magnetic (also known as dynamic), piezoelectric, and condenser," with no reason to

select any of them for the combined system. Pet. at 60 (quoting EX1013, 763). In my opinion, a survey of what has "at least been tried" does not show what the proposed combination discloses or how it would be configured.

XIX. CONCLUSION

76. For the reasons set forth above, it is my opinion that Petitioner's evidence does not establish that any of Claims 1–29 of the '710 Patent would have been obvious over the combinations asserted in any of Grounds 1–16.

77. I reserve the right to supplement or amend my opinions in response to any new arguments, evidence, or testimony offered by Petitioner or its declarants, any orders of the Board, or as otherwise permitted.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on July 29, 2026, at Pittsburgh, Pennsylvania.

By: Michael Ian Shamos
Dr. Michael Shamos

APPENDIX A

Resume of Michael Ian Shamos

Current to July 15, 2026

Education

A.B. (1968) Princeton University (Physics). Thesis: "Gravitational Radiation Reaction." Advisor: John A. Wheeler.

M.A. (1970) Vassar College (Physics). Thesis: "An Absorber Theory of Acoustical Radiation." Advisor: Morton A. Tavel.

M.S. (1972) American University (Technology of Management).

M.S. (1973) Yale University (Computer Science).

M.Phil. (1974) Yale University (Computer Science).

Ph.D. (1978) Yale University (Computer Science). Thesis: "Computational Geometry". Thesis committee: David Dobkin, Martin H. Schultz, Stanley C. Eisenstat.

J.D. (1981) Duquesne University, *cum laude.*

Foreign Languages

French, Russian (good reading and technical translation skills, fair conversational ability).

Academic Experience

Distinguished Career Professor, Language Technologies Institute and Software and Social Systems Department, School of Computer Science, Carnegie Mellon University (2001-)
Principal Systems Scientist (1998-2001)
Principal Lecturer (2002-2003). Teaching Professor (2003-)
Faculty, Tepper School of Business, Carnegie Mellon University (1999-2004).
Co-Director, Carnegie Mellon Institute for eCommerce (1998-2004)
Vice-Chair, University Research Council (2000-2002)
Director, eBusiness Technology degree program, Carnegie Mellon (2003-2018)
Director, M.S. in Artificial Intelligence and Innovation, Carnegie Mellon (2018-2026)
Associate Director, M.S. in Artificial Intelligence and Innovation, Carnegie Mellon (2018-2026)
Affiliated Faculty, CMU Center for Informed Democracy and Social-cybersecurity (2021-)
Core faculty, Privacy Engineering degree program (2013-)
Director, Universal Library, Carnegie Mellon University (1998-)
Visiting Professor, Faculty of Engineering, The University of Hong Kong (2001-2021)
Adjunct Faculty, Carnegie Mellon University, Department of Computer Science (1981-1998)

Assistant Professor, Carnegie Mellon University, Departments of Computer Science and Mathematics (1975-81), Dept. of Statistics (1978-81).

Courses taught (Carnegie Mellon):
Algorithm Design and Analysis 15-451 (Comp. Sci.)
Intellectual Capital and its Protection 45-886 (MBA)
Ecommerce Technology 20-751 (MSEC program)
Electronic Payment Systems 20-753 (MSEC program), 96-774 (MSIT program)
Ecommerce Law and Regulation 46-840 (MSEC program)
Electronic Voting 17-803
Ubiquitous Computing, 96-761 (MSIT Program)
Electronic Payment Systems (MSIT Program)
Law of Computer Technology, 17-762/17-662/17-562 (2007-)
Artificial Intelligence and Future Markets, 11-561 (2018-)

Honors and Awards

Fellow, Society of the Sigma Xi (1974-83).

IBM Fellowship, Yale University (1974–75).

SIAM National Lecturer (1977–78).

Distinguished Lecturer (computer science), University of Rochester (1978); McGill University (1979).

Duquesne University Law Review (1980–81).

Black & White Scotch Achiever's Award (first annual, 1991, for contributions to bagpipe musicography).

Industry Service Award of the Billiard and Bowling Institute of America, 1996 (for contributions to billiard history).

Billiard Worldcup Association official referee (2001-)

Editorships

Editor-in-Chief, Journal of Privacy Technology (2003- 2006).

Member of Editorial Board, *Electronic Commerce Research Journal* (2000-).

Member of Editorial Board, *Pittsburgh Journal of Technology Law and Policy* (1999-2003).

Dr. Shamos has reviewed scientific papers for *Communications of the ACM*, *Mathematical Reviews*, *IEEE Computer*, *IEEE Transactions on Computers*, *Information Processing Letters*, *Journal of the ACM* and the *Journal of Computational Physics*.

Contributing Editor, *Billiards Digest* magazine (1990-).

Patents

Co-inventor with K. Srinivasan, U.S. Patent 7,330,839, "Method and System for Dynamic Pricing," issued February 12, 2008.

Co-inventor with K. Srinivasan, U.S. Patent 7,421,278, "Method and Apparatus for Time-Aware and Location-Aware Marketing," issued September 2, 2008.

Co-inventor with K. Srinivasan, U.S. Patent 7,747,465, "Determining the Effectiveness of Internet Advertising," issued June 29, 2010.

Co-inventor with K. Srinivasan, U.S. Patent 8,195,197, "Method and Apparatus for Time-Aware and Location-Aware Marketing," issued June 5, 2012.

Co-inventor with K. Srinivasan, U.S. Patent 8,280,773, "Method and Apparatus for Internet Customer Retention," issued October 2, 2012.

Co-inventor with K. Srinivasan, U.S. Patent 9,456,299, "Method and Apparatus for Time-Aware and Location-Aware Marketing," issued September 27, 2016.

Legal Experience

Special Counsel, Reed Smith LLP (2000-2003), electronic commerce law.

Shareholder, The Webb Law Firm (1996-2000), intellectual property law. Associate (1990-95).

Private practice of law (1987-90), intellectual property

Associate, law firm of Buchanan, Ingersoll, P. C. (1985-87)(now Buchanan Ingersoll & Rooney, PC), Emerging Companies Department.

General Counsel, Carnegie Group, Inc. (1983-85), artificial intelligence company.

Private practice of law (1981-83), computer law.

Bar Admissions

Supreme Court of Pennsylvania (1981–).

United States District Court for the Western District of Pennsylvania (1981–).

United States Patent and Trademark Office (1981–).

United States Tax Court (1982–).

United States Court of Appeals for the Armed Forces (1982–).

United States Court of Appeals for the Third Circuit (1982–).

United States Supreme Court (1985–).

United States Court of Appeals for the Federal Circuit (1985–).

Expert Witness

Dr. Shamos has served as an expert witness in multiple computer software and electronic voting cases. He has participated in the cases listed below. "D" indicates deposition testimony; "R" indicates report, declaration or affidavit; "T" indicates trial testimony.

Total: 414 cases, including 329 patent, 52 electronic payment, 22 electronic voting, 23 trade secret, 14 copyright, 1 criminal.
Affidavits, reports or declarations submitted in 299 cases.
Deposed in 168 cases.
Testified at trial or hearing in 54 cases (22 jury trials).
Participated in 7 ITC investigations, 131 IPRs, 22 CBMs, 11 PGRs, and 10 reexams.

1. *C.W. Communications, Inc. v. International Research Service, Inc.*, Civil Action No. 84-890, (W.D. Pa. 1984), aff'd. Case No. 88-3331 (3d Cir., Oct. 31, 1988). Served as an expert for plaintiff publisher as to the fame of its "Computerworld" trademark. Result: permanent injunction entered against defendant. Judge McCune's Memorandum and Order states. "We accept the conclusion drawn by Dr. Shamos." Firm: Webb, Burden Robinson & Webb (now the Webb Law Firm). (D,T)

2. *E.F. Hutton, Inc. v. Gipson* (W.D. Pa. 1985). Served as an expert for defendant-counterclaimant physician as to fraud in the inducement by a computer hardware supplier. Plaintiff had provided capital financing for the purchase. Result: defendant was awarded compensatory damages + $250,000 punitive damages. (D,T)

3. *In re Comprehensive Business Systems,* 119 B.R. 573 (S.D. Ohio 1990). Served as an expert for a secured creditor in a bankruptcy case in which the creditor sought to obtain software still in development for which it had advanced over $2 million in funding. Dr. Shamos opined as to the value of the incomplete software. Result: the creditor was able to purchase the software from the Trustee for $67,500. The Court referred in its opinion to "the testimony of the eminent and impressive Dr. Shamos." (D,R,T)

4. *Levinson Steel Co. v. American Software, Inc. et al.*, Civil Action No. 96-282, W.D. Pa. (1996). Served as an expert for plaintiff in a case involving bad faith estimates of computer processing capacity resulting in delivery of an inadequate system. Result: settlement in favor of plaintiff in an undisclosed amount. Contact: Reed Smith LLP, 225 Fifth Ave., Pittsburgh, PA 15222. (D,R)

5. *ASE Limited v. INCO Alloys International, Inc.*, Civil Action No. 98-1266, (W.D. Pa. 1998). Served as an expert for defendant concerning breach of computer services contract by declaratory judgment plaintiff. Result: determination that defendant was free to seek services from a different vendor. Firm: Reed Smith LLP, 225 Sixth Ave., Pittsburgh, PA 15222. Attorney: Anthony Basinski, Esq. (D,T)

6. *Twentieth Century Fox Film Corp. v. iCraveTV*, 53 U.S.P.Q. 2d 1831 (W.D. Pa. 2000). Served as an expert for Plaintiffs concerning Internet technology used to stream video from U.S. TV stations through web sites in Canada. Result: TRO and preliminary injunction issued against defendants prohibiting continued infringement in the U.S. Firm: Reed Smith LLP. Attorney: Gregory Jordan, Esq. (T)

7. Invited testimony before the British House of Lords, Subcommittee B of the European Union Committee, April 20, 2000. Subject: European regulation of eCommerce. View testimony.

8. *Universal Studios, Inc. v. Reimerdes*, 111 F. Supp. 2d 294 (S.D.N.Y. 2000), aff'd. 273 F.3d 429 (2d Cir. 2001). Served as an expert for plaintiff movie studios concerning accused software for decrypting DVDs in the first case interpreting the Digital Millennium Copyright Act. Result: permanent injunction issued in favor of plaintiffs on August 17, 2000. Contact: William Hart, Esq., Proskauer Rose LLP. View testimony. View opinion. View appellate opinion. (D,T)

9. *MercExchange, L.L.C. v. eBay, Inc. et al.*, Case No. 2:01-CV-736 (E.D. Va. 2001). Served as an expert for defendant eBay in an infringement case concerning U.S. Patent 6,202,051 for Internet auctions. Following Dr. Shamos' reports, Defendants obtained a summary judgment of noninfringement of the subject patent. On the other patents, the case went to the U.S. Supreme Court, which ruled that injunctions are not automatic in patent cases. Contact: Tim Teter, Esq., Cooley LLP. (D,R)

10. *PowerQuest Corp. v. Quarterdeck Corp. et al.*, Case No. 2:97-CV-0783 (D. Utah 1997). Served as an expert for plaintiff PowerQuest in an infringement case concerning U. S. Patents 5,675,769 and 5,706,472 for a method of resizing hard disk partitions. Dr. Shamos testified at the Markman hearing. Case settled when one of the defendants acquired plaintiff. Attorney: Gregg I. Anderson, Esq., formerly at Merchant & Gould, now an Administrative Patent Judge at the Patent Trial and Appeal Board. (R,T)

11. *Sightsound.Com Inc. v. N2K Inc. et al.*, C.A. 98-118 (W.D. Pa. 1998). Served as an expert for defendants, including a subsidiary of Bertelsmann AG, concerning validity of U.S. Patents 5,191,573 and 5,966,440 for distribution of digital audio via telecommunications lines. Case

settled. Firm: Parcher, Hayes & Snyder, (no longer in existence). Contact: Steven M. Hayes, Esq., Simmons Hanley Conroy, LLC, 112 Madison Ave., New York, NY 10016. (D,R)

12. *Freemarkets, Inc. v. B2eMarkets, Inc.*, C.A. 02-162-SLR (D. Del. 2002). Served as an expert witness for plaintiff concerning infringement of U.S. patents 6,216,114 and 6,223,167, concerning methods of conducting electronic auctions. Case settled two weeks after expert attended a demonstration of the accused product. Contact: D. Michael Underhill, Esq., Boies, Schiller & Flexner, LLP, Washington, DC.

13. *Lifecast.com, Inc. v. ClubCorp, Inc.*, AAA Case No. 71Y1170076301 (Dallas, TX). Served as an expert witness for respondent in a case alleging copyright infringement of Internet websites. Testified at arbitration. Result: Complainant's claims denied; award for respondent on counterclaims and for attorney's fees. Contact: Bill Whitehill, Esq., Gardere Wynne Sewell LLP, 1601 Elm St., Dallas, TX 75201. (T)

14. *IP Innovation LLC v. Thomson Learning, Inc. et al.*, Case H-02-2031 (S.D. Tex. 2002). Served as an expert for defendant The Princeton Review, Inc. concerning alleged infringement of U.S. Patent 4,877,404 relating to online delivery of educational courses. Summary judgment of non-infringement obtained for defendant after favorable Markman proceeding. Contact: Peter Vogel, Esq., Gardere Wynne Sewell LLP, 1601 Elm St., Dallas, TX 75201. (R)

15. *Starpay.com LLC et al. v. Visa International Service Association et al.*, Case 3-03-CV-976-L (N.D. Tex. 2003). Served as an expert for defendant Visa concerning alleged infringement of U.S. Patent 5,903,878 relating to online authentication of credit card customers. Dr. Shamos provided the court with a Markman tutorial in 2004 and a non-infringement and invalidity declaration in 2008. Case settled in February 2008. Contact: Stanley Young, Esq., Covington & Burling LLP, 333 Twin Dolphin Drive, Suite 700, Redwood Shores, CA 94065. (D,R,T)

16. *Safeclick LLC v. Visa International Service Association et al.*, Case C-03-5865 (N.D. Cal. 2003). Served as an expert for defendant Visa concerning alleged infringement of U.S. Patent 5,793,028 relating to online authentication of credit card customers. Summary judgment of noninfringement granted for Visa based on expert reports, affirmed after appeal to the Federal Circuit. Contact: Stanley Young, Esq., Covington & Burling LLP, 333 Twin Dolphin Drive, Suite 700, Redwood Shores, CA 94065. (D,R)

17. *Wells Fargo Bank Minnesota, NA et al. v. UBS Warburg Real Estate Securities, Inc.*, Case 02-2849 (192d Judicial District, Dallas Cty., Tex, 2002) and *LaSalle Bank, NA et al. v. UBS Warburg Real Estate Securities, Inc.*, Case 02-2899-G (134th Judicial District, Dallas Cty., Tex, 2002). Served as an expert for defendant UBS Warburg in an electronic discovery matter involving a case of first impression regarding Texas Discovery Rule 196.4 allocating costs of discovery of electronic records. Firm: Gardere Wynne Sewell LLP, 1601 Elm St., Dallas, TX 75201. Contact: Dawn Estes, Esq., Taber, Estes Okon Thorne & Carr PLLC, 3811 Turtle Creek Blvd., Suite 2000, Dallas, TX 75219. (D, R)

18. *American Association of People with Disabilities et al. v. Shelley et al.*, Case No. CV04-1526 FMC (PJWx) (C. D. Calif., 2004). Served as an expert for plaintiff AAPD, which has brought a claim against the California Secretary of State that requiring DRE voting machines to be equipped with audit trails violates the rights of disabled persons. Plaintiffs' application for TRO and preliminary injunction denied. Firm: Howrey LLP, (no longer in existence). Attorney John E. McDermott is now a Magistrate Judge in the Central District of California. (R)

19. *Paul Ware v. Target Corp.*, CA 4:03-CV-0243-HLM (N.D. Ga., 2003). Served as an expert for defendant Target Corp., a large retailer, in a case involving U.S. patent 4,707,592, claiming a method of conducting credit card sales. Case settled during Markman preparations. Contact: Thomas P. Burke, Esq., Ropes & Gray LLP, 1211 Ave. of the Americas, New York, NY 10036.

20. *Viad Corp., v. C. Alan Cordial et al.*, No. 03-1408 (W.D. Pa., filed 2003). Served as an expert for defendants in an action alleging misappropriation of trade secrets relating to software for automating certain aspects of the exhibit booth and trade show industries. Status: case settled immediately before trial, after plaintiff's unsuccessful Daubert challenge of Dr. Shamos. Contact: Barbara Scheib, Esq., Cohen & Grigsby, P.C., 11 Stanwix Street, Pittsburgh, PA 15222. (D,R,T)

21. *Schade et al. v. Maryland State Bd. of Elections et al.*, Case No. C0497297 (Cir. Ct. Anne Arundel Cty. Md., 2004). Served as an expert for defendants in a case challenging the decision of the Board of Elections not to decertify Diebold AccuVote system. Result: Plaintiff's motion for preliminary injunction denied, upheld on appeal. Judge Manck's opinion cites Dr. Shamos' testimony as follows: "the court finds Dr. Shamos, Defendants' expert, to be the true voice of reason and the most credible expert in this matter." The denial of preliminary injunction was upheld by the Maryland Court of Appeals, which commented extensively on Dr. Shamos' testimony in its opinion. Contact: Michael Berman, Esq., (formerly Maryland Deputy Attorney General), Rifkin, Weiner, Livingston, Levitan & Silver, LLC. (R,T)

22. *Wexler et al. v. Lepore et al.*, Case No. 04-80216 (CIV-COHN) (S.D. Fla. 2004) . Served as an expert for defendants, various Florida election supervisors against claim by U.S. Congressman Robert Wexler that use of DRE voting machines without paper audit trails violates the equal protection clause of the U.S. Constitution. Dr. Shamos testified on Oct. 19, 2004. The trial judge rendered judgment in favor of defendants on Oct. 25. Contact: Jason Vail, Esq., then Assistant Attorney General, Department of Legal Affairs, The Capitol, Tallahassee, FL, now at Allen Norton & Blue, PA. Opinion. (T)

23. *Siemens Information and Communication Networks, Inc. v. Inter-Commercial Business Systems, Inc.*, Civil Action 3-03CV2171-L (N.D. Tex. 2004). Served as an expert for defendant against claim of copyright infringement based on reverse-engineered firmware resident in telephone switching systems. Status: case settled shortly after the submission of Dr. Shamos's rebuttal report on non-infringement. Contact: Bill Whitehill, Esq., Gardere Wynne Sewell LLP, 1601 Elm St., Dallas, TX 75201. (R)

24. *Soverain Software LLC v. Amazon.com, Inc.*, C.A. No. 6:04-CV-14 (E.D. Tex. 2004). Served as an expert for plaintiff regarding asserted patents 5,708,780, 5,715,314 and 5,909,492,

relating to the shopping cart paradigm of electronic commerce. Status: settled in Sept. 2005 with Amazon paying $40 million to Soverain and taking a license under the patents in suit. Contact: Ognian Shentov, Esq., Jones Day, 222 E. 41st St., New York, NY 10017. (D,R)

25. *CollegeNET, Inc. v. The Princeton Review, Inc.*, Case '051205KI (D. Ore. 2005). Served as an expert for defendant The Princeton Review, Inc. concerning alleged infringement of U.S. Patent 6,460,042 relating to online delivery of educational courses. Case settled in December 2007. Contact: Peter Vogel, Esq., Gardere Wynne Sewell LLP, 1601 Elm St., Dallas, TX 75201. (R)

26. *CombineNet, Inc. v. VerticalNet. Inc.*, GD 05-018911 (Ct. Common Pleas, Allegheny Cty., PA). Served as an expert for plaintiff in an action for trade secret misappropriation relating to a system for conducting electronic auctions. Plaintiff won in arbitration. Contact: Mark Knedeisen, Esq., K&L Gates LLP, 210 Sixth Avenue, Pittsburgh, PA 15222-2613. (T)

27. *RealSource, Inc. v. Best Buy Co., Inc. et al.*, No. A04-CA-771-LY (W.D. Tex.). Served as an expert for defendant Lowe's Companies, Inc., against a claim of infringement of U.S. patent 5,732,136 relating to validation of point-of-sale debit card transactions. Provided a tutorial to the Court during Markman proceedings concerning debit card technology. Defendants won summary judgment of non-infringement, affirmed by the Federal Circuit. Defendants Lowe's settled and was not involved in the appeal. Contact: Michael S. Connor, Esq., Alston & Bird LLP, Bank of America Plaza, 101 South Tryon St, Suite 4000, Charlotte, NC 28280-4000. (R,T)

28. *DE Technologies, Inc. v. Dell, Inc. et al.*, No. 7:04-CV-00628 (W.D. Va.). Served as an expert for plaintiff DE Technologies, Inc., asserting a claim of infringement of U.S. patents 6,460,020 and 6,845,364, relating to a system for implementing international sales transactions. Case settled after and adverse summary judgment. However, the Court used Dr. Shamos' testimony in its opinion. Contact: David Marder, Esq., Robins Kaplan Miller & Ciresi LLP, 800 Boylston Street, 25th Floor, Boston, MA 02199. (D,R,T)

29. *Eaton Power Quality Corp. v. J.T. Packard & Associates*, No. 05 C 3545 (N.D. Ill. 2005). Served as expert for plaintiff in a claim of software copyright infringement involving a system for configuring industrial uninterruptible power supplies. Case settled in early 2007. Firm: Dewey & LeBoeuf. Contact: Keith P. Schoeneberger, Esq., Pasulka & Associates PC. (D,R)

30. *Taylor et al. v. Onorato et al.*, CA 06-481 (W.D. Pa 2006). Served as an expert for Commonwealth of Pennsylvania defendants in an action seeking to enjoin the use of electronic voting machines in Allegheny County, PA. Dr. Shamos testified at length in a preliminary injunction hearing held April 25-27, 2006 before Judge Lancaster. The injunction was denied on April 28. Suit was subsequently dropped by plaintiffs. Contact: Mark Aronchick, Esq., Hangley Aronchick Segal Pudlin & Schiller, One Logan Square, 18th & Cherry Streets, 27th Floor, Philadelphia, PA 19103. (T)

31. *FedEx Ground Package System, Inc. v. Applications International Corp.*, CA No. 03-1512 (W.D. Pa.). Served as an expert for defendant counterclaiming for copyright infringement and

trade secret misappropriation relating to software for maintaining occupational health and safety records. Dr. Shamos's testimony was excluded because he was unable to perform a side-by-side comparison of the original and accused works. Case has settled. Contact: Ronald Hicks, Esq., Meyer, Unkovic & Scott LLP, 1300 Oliver Bldg., Pittsburgh, PA 15222. (D,R)

32. *NetMoneyIN, Inc. v. Verisign, Inc. et al.*, Cv-01-441-TUC-RCC (D. Ariz.). Served as an expert for defendants Bank of America Merchant Services, Inc. and Wells Fargo Bank, N.A., who are accused of infringing claim 23 of U.S. patent 5,822,737, relating to an electronic payment system. Wells Fargo and Bank of America have settled. Contact: K&L Gates LLP, State Street Financial Center, One Lincoln Street, Boston, Massachusetts 02111-2950. (D,R)

33. *Contois Music Technology, LLC v. Apple Computer, Inc.*, 2:05-CV-163 (D. Vermont, filed Feb. 13, 2006). Served as an expert for plaintiff in an action alleging that the Apple iTunes software infringed U.S. patent 5,864,868, relating to a method for selecting music from an electronic catalog. Case settled after a favorable Markman order. Contact: John Rabena, Esq., Sughrue Mion PLLC, 2100 Pennsylvania Avenue, NW, Suite 800, Washington, DC 20037-3213.

34. *Banfield et al. v. Cortés*, 442 MD 2006 (PA Cmwlth. Ct.). Served as an expert for defendant Secretary of the Commonwealth of Pennsylvania in an action to compel the decertification of all electronic voting machines in Pennsylvania. In February 2008 Defendant successfully repelled an emergency motion for preliminary injunction. In August 2012, the Court denied Petitioners' motion for summary judgment, citing Dr. Shamos's expert report extensively. In October 2013, the Commonwealth Court granted summary judgment for the Secretary. The Pennsylvania Supreme Court affirmed on February 18, 2015. Contact: Steven E. Bizar, Esq., Buchanan Ingersoll & Rooney PC, Two Liberty Place, 50 S. 16th St., Philadelphia, PA 19102-2555. (D,R)

35. *Remote Inventory Systems, Inc. v. WESCO Distribution, Inc.*, AAA Case No. 55 171 00493 05 (Pittsburgh, PA). Served as an expert for respondent in a case alleging misappropriation of trade secrets in a computerized inventory system. Contact: Kirsten Rydstrom, Esq., Reed Smith LLP, 225 Fifth Ave., Pittsburgh, PA 15222. (D,R)

36. *SyncSort, Inc. v. Innovative Routines International, Inc.*, Civil Action No. 04-3623 (WHW) (D. New Jersey). Served as an expert witness for defendant in an action alleging misappropriation of trade secrets embodied in plaintiff's Unix sorting software. Dr. Shamos testified at a bench trial in January 2011. Case settled after an appeal to the Third Circuit was filed. Contact: David R. Fine, Esq., K&L Gates LLP, 17 N. Second Street, 18th Floor, Harrisburg, PA 17101-1507. (D,R,T)

37. *Digital Impact, Inc. v. Bigfoot Interactive, Inc.*, Civil Action C05 00636 (CW) (N.D. Cal.). Served as an expert witness for defendant in an action alleging infringement of U.S. Patent 6,449,634, relating to determining which file formats can be processed by an email client. Result: defendant obtained summary judgment of non-infringement, upheld by the Federal Circuit. Contact: Arthur Dresner, Esq., Duane Morris LLP, 1540 Broadway, New York, NY 10036. (D,R)

38. *Prism Technologies LLC v. Verisign, Inc. et al.*, CA 05-214-JJF (D. Del.). Served as an expert for plaintiff in an action alleging infringement of U.S. Patent 6,516,416, relating to use of a hardware key for authentication over networks. Defendants prevailed on summary judgment of non-infringement, which was upheld on appeal. Firm: Robins Kaplan Miller & Ciresi LLP. Contact: Dirk D. Thomas. Esq., McKool Smith, 1999 K Street, N.W., Suite 600, Washington, DC 20006. (R)

39. *AdvanceMe, Inc. v. RapidPay LLC et al.*, Civil Action 6:05-cv-424 LED (E.D. Tex., Tyler Division). Served as an expert witness for plaintiff in an action alleging infringement of U.S. Patent 6,941,281, relating to an automated payment system for dividing credit card proceeds between a merchant and another party. Testified at a bench trial in July 2007 before Judge Davis, who held the patent infringed but invalid for obviousness. Firm: Paul, Hastings LLP, Five Palo Alto Sq., Palo Alto, CA 94306. Contact: Ronald S. Lemieux, Esq., Singularity LLP, 275 Shoreline Drive, Redwood Shores, CA 94065. (D,R,T)

40. *IBM Corp. v. Amazon.com, Inc.*, CA 9:06-CV-242-RHC (E.D. Tex., Lufkin Div.) and *IBM Corp. v. Amazon.com, Inc.*, CA 6:06-CV-452-LED (E.D. Tex., Marshall Div.). Served as an expert for IBM in related actions alleging infringement of U.S. Patents 5,319,542, 5,442,771, 5,446,891, 5,796,967 and 7,072,849, all concerning methods of conducting electronic transactions, and a counterclaim for infringement of U.S. Patent 5,826,258, concerning a method for querying semistructured data. Case settled early in discovery when the parties cross-licensed each other's patents. Contact: Mark J. Ziegelbein, Esq., Dentons US LLP, 2000 McKinney Ave., Suite 1900, Dallas, TX 75201-1858.

41. *The MathWorks, Inc. v. COMSOL AB et al.*, CA 6:06-CV-334 (E.D. Tex., Tyler Division). Served as an expert for plaintiff The MathWorks, providers of the mathematical software system MATLAB, in an action alleging copyright infringement and infringement of U.S. Patents 7,051,338 and 7,181,745 concerning methods for invoking object methods from external environments. After trial, the case settled with defendant admitting infringement, paying $12,000,000 in damages and waiving appeal rights. Contact: Krista Schwartz, Esq., Jones Day, 77 W. Wacker Dr., Chicago, IL 60601-1692.

42. *Avante Int'l. Technology Corp. v. Diebold Election Systems et al.*, Case 4:06-CV-0978 TCM (E.D. Mo., Eastern Division). Served as an expert for defendants Sequoia Voting Systems and Premier Election Systems in an action alleging infringement of U.S. Patents 6,892,944, 7,036,730 and 7,077,313 concerning electronic voting technology. Dr. Shamos testified at a 5-day trial in February 2009. Result: The jury found Plaintiff's asserted claims invalid as anticipated and obvious. Contact: Peter T. Ewald, Esq., Oliff & Berridge, PLC, 277 South Washington Street, Suite 500, Alexandria, VA 22314. (D,R,T)

43. *Netcraft Corp. v. eBay, Inc. and PayPal, Inc.*, Case 3:07-cv:00254-bbc (W.D. Wisc. 2007). Served as an expert for defendants in an action alleging infringement of U.S. Patents 6,351,739 and 6,976,008 concerning methods of billing for ecommerce transactions over the Internet. Defendants were granted summary judgment of non-infringement on Dec, 10, 2007, upheld on appeal. Firm: Irell & Manella LLP, 180 Avenue of the Stars, Los Angeles, CA

90067. Contact: Kenneth Weatherwax, Esq., Goldberg, Lowenstein & Weatherwax LLP, 1925 Century Park East, Suite 2120, Los Angeles, CA 90067.

44. *ACLU of Ohio et al. v. Brunner et al.*, Case 1:09 CV 0145 (N.D. Ohio 2008). Served as an expert witness in an action alleging that the use of central count optical scan voting should not be permitted in Cuyahoga County, as had been ordered by the county board of elections. A preliminary injunction was denied in February 2008. The case became moot and was dismissed in May 2008 when the Ohio Legislature granted by statute the relief requested by plaintiff, prohibiting the use of central count opscan in Cuyahoga County. Contact: Meredith Bell-Platts, Esq., ACLU Voting Rights Project, 2600 Marquis One Tower, Atlanta, GA 30303. (R)

45. *Ariba, Inc. v. Emptoris, Inc.*, Civil Action 9:07-CV-90-RHC (E.D. Tex. 2007). Served as an expert for Ariba in an action alleging infringement of U.S. Patents 6,216,114 and 6,499,018, relating to the conduct of electronic auctions. Dr. Shamos testified in a jury trial on infringement and validity. Result: verdict finding all asserted claims valid and willfully infringed. Contact: Robert Fram, Esq., Covington & Burling LLP, One Front St., San Francisco, CA 94111. (D,R,T)

46. *EpicRealm Licensing, LP v. Autoflex Leasing Inc. et al.*, CA 5:07-CV-125 (E.D. Tex. 2005). Served as an expert for defendant Herbalife International of America, Inc. in an action alleging infringement of U.S. patents 5,894,554 and 6,415,335, relating to a system for managing generation of dynamic Internet web pages. All original defendants settled. See also the Oracle case below. Contact: Ognian Shentov, Esq., Jones Day, 222 E. 41st St., New York, NY 10017. Also served as an expert for defendant FriendFinder in a separate trial in this action. After a jury trial before Judge Folsom, the patents were found valid and infringed, but the jury awarded only $1.1M, the smallest amount testified to by defendant's damages expert. Contact: Michael J. Sacksteder, Esq., Fenwick & West LLP, 555 California St., San Francisco, CA 94104. (D,R,T)

47. *Oracle Corporation v. EpicRealm Licensing, LP*, CA 2-06-414 (D. Del. 2006), later *Oracle Corporation v. Parallel Networks, LLC.* Served as an expert for Oracle in a declaratory judgment alleging invalidity of U.S. patents 5,894,554 and 6,415,335, relating to a system for managing generation of dynamic Internet web pages. The patents are the same as those in the EpicRealm case, above. Oracle obtained summary judgment of non-infringement, reversed on appeal to the Federal Circuit. Case settled in May 2011 on the eve of trial. Firm: Kilpatrick Townsend & Stockton, LLP, 379 Lytton Ave., Palo Alto. CA 94301. Contact: Theodore T. Herhold, Singularity LLP, 275 Shoreline Drive, Redwood Shores, CA 94065. (D,R)

48. *Saulic v. Symantec Corporation et al.*, Case No. SA CV 07-610 AHS (C.D. Cal., Santa Ana Division, 2007). Served as an expert for defendant Symantec in a removal action alleging violation of California Civil Code §1747.8, relating to the collection of personal identification information in connection with credit card transactions. Case settled. Original firm: Heller Ehrman. Contact: Chad R. Fuller, Esq., Troutman Sanders LLP, 11682 El Camino Real, Suite 400, San Diego, CA 92121. (R)

49. *Gusciora et al. v. McGreevey et al.* (now *Gusciora v. Christie*), Docket No. MER-L-2691-04 (N.J. Super., Mercer County). Served as an expert for defendants, including the Governor and Attorney General of New Jersey, in a case alleging that the state's AVC Advantage voting machines are unconstitutionally insecure. A bench trial was held from January-May, 2009 before Judge Linda Feinberg. The Court's opinion adopts Dr. Shamos' testimony and comments on it extensively. Affirmed on appeal in October 2013. Contact: Leslie Gore, Esq., Asst. Atty. Gen'l., 25 Market Street, P.O. Box 112, Trenton, NJ 08625. (D,R,T)

50. *R.R. Donnelley & Sons Company v. Quark, Inc. et al.*, C.A. No. 06-00032-JJF (D. Del.). Served as an expert for plaintiff R.R. Donnelley in a case alleging infringement of U.S. Patents 6,205,452, 6,327,599, 6,844,940 and 6,952,801, relating to book assembly, imposition of graphics and control of electronic presses. Case has settled. Contact: Stuart W. Yothers, Esq., Ropes & Gray LLP, 1251 Avenue of the Americas, New York, NY 10020.

51. *MOAEC, Inc. v. Pandora Media, Inc. et al.*, Case No. 07-cv-654-bbc (W.D. Wisc.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 5,969,283, 6,232,539, 6,953,886 and 7,205,471, relating to systems for organizing and retrieving digital music. Two defendants obtained summary judgment of noninfringement; the remaining defendant settled. Contact: Joshua Krumholz, Esq., Holland & Knight, LLP, 10 St. James Avenue, 11th Floor, Boston, MA 02116. (D,R)

52. *Web.com, Inc. v. The Go Daddy Group, Inc.*, Case No. CV07-01552-PHX-MHM (D. Ariz.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 6,654,804, 6,789,103, 6,842,769 and 6,868,444, relating to methods for managing configuration of web servers and provision of Internet services. Case has settled. Firm: Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304. Contact: Richard G. Frenkel, Esq., Latham & Watkins LLP, 140 Scott Drive, Menlo Park, CA 94025.

53. *Hummel et al. v. Dynacraft BSC, Inc. et al.*, Case No. CV 052214 (Cal. Super. Marin Cty.). Served as an expert for defendants in an action alleging breach of contract for web hosting services. Dr. Shamos provided four hours of trial testimony. Result: verdict for the defense. Contact: Joe B. Harrison, Esq., Gardere Wynne Sewell LLP, 1601 Elm St., Suite 3000, Dallas, TX 75201. (T)

54. *Tegg Corp. v. Beckstrom Electric Co. et al.*, Civil Action No. 2:08-CV-00435-NBF (W.D. Pa.). Served as an expert for defendants in a case alleging infringement of copyright in computer software for administering field maintenance of electrical equipment. Case has settled. Original firm: Reed Smith LLP. Contact: Richard D. Kelley, Esq., Bean Kinney & Korman, 2300 Wilson Blvd., Suite 700, Arlington, VA 22220.

55. *Cordance Corporation v. Amazon.com, Inc.*, Civil Action No. 06-491-MPT (D. Del.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 5,862,325, 6,088,717 and 6,757,710, relating to an infrastructure for conducting online transactions. In August 2009 a jury found the '717 patent valid but not infringed and the '710 patent infringed but invalid. The finding of invalidity of the '710 patent was vacated by the Court on judgment as a matter of law. The Federal Circuit reversed and reinstated the jury's finding. Contact: Robert

M. Abrahamsen, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210. (D,R, T)

56. *Anthurium Solutions, Inc. v. MedQuist, Inc. et al.*, Case No. 2:07-vcv-484 (DF/CE) (E.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 7,031,998, relating to a distributed workflow system. Case settled ten days after responsive expert reports were served. Contact: Joshua Krumholz, Esq., Holland & Knight, LLP, 10 St. James Avenue, 11th Floor, Boston, MA 02116. (R)

57. *Performance Pricing, Inc. v. Google, Inc. et al.*, Case No. 2:07-cv-432(LED) (E.D. Tex.). Served as an expert for defendant Yahoo! in a case alleging infringement of U.S. Patent 6,978,253, relating to determining prices for items sold online. Case has settled as to defendant Yahoo!. Contact: Michael A. Jacobs. Esq., Morrison & Foerster LLP, 425 Market Street, San Francisco, CA 94105. Also served as an expert for remaining defendants Google and AOL. In March 2010 the Court granted defendants' motion for summary judgment of noninfringement, affirmed by the Federal Circuit. Contact: David A. Perlson. Esq., Quinn Emanuel Urquhart & Sullivan, LLP, 50 California Street, San Francisco, CA 94111. (D,R)

58. *Nationwide Power Solutions, Inc. et al., v. Eaton Electrical Inc.*, Case No. CV-8:07-0883-JVS (C.D. Cal.). Served as an expert for defendant/counterclaimant Eaton in a case alleging antitrust violations by Eaton arising out of proprietary servicing software in its uninterruptible power supplies. Case has settled. Contact: James L. Day, Esq., Latham & Watkins LLP, 505 Montgomery Street, Suite 2000 San Francisco, CA 94111.

59. *CBS Interactive, Inc. v. Etilize, Inc.*, Case No. C -6-05378 (MHP) (N.D. Cal.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 6,714,933 and 7,082,426, relating to web crawling technology to aggregate product information. Defendant consented to an injunction against further infringement and the case settled. Firm: Winston & Strawn, LLP, 101 California Street, San Francisco, CA 94111. Contact: Glenn E. Westreich, Esq., Hayes and Boone, LLP, 2033 Gateway Place, San Jose, CA 95110.

60. *Geographic Services, Inc. v. Anthony Collelo*, Case 2008-9961 (Fairfax Cty., Va.). Served as an expert for plaintiff in a case alleging misappropriation of trade secrets involving determining and proofing geographic names as applied to maps and satellite imagery. Case was dismissed by Judge Ney on technical legal grounds at the close of Plaintiff's case. The Virginia Supreme Court reversed and remanded the case for further proceedings. Case has settled. Contact: Mark W. Wasserman, Esq., Reed Smith LLP, 3110 Fairview Park Drive, Suite 1400, Falls Church, VA 22042. (D,R,T)

61. *ODS Technologies, LP v. Magna Entertainment Corp., et al.*, CV 07-03265 DDP (D. Del.). Served as an expert for defendants in a case alleging infringement of U.S. Patents 5,830,068, 6,004,211, 6,089,981, 6,554,709 and 7,229,354, relating to off-track wagering systems and methods for restricting wagering based on location. Dr. Shamos submitted a declaration in support of summary judgment. Case settled before expert reports were

due. Contact: Virginia DeMarchi, Esq., Fenwick & West, LLP, 801 California Street, Mountain View, CA 94041. (R)

62. *Gannett Satellite Information Network, Inc. v. Office Media Network, Inc.*, C.A. No. 08-96-GMS (D.Del.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 6,288,688, 6,622,826, 6,981,576 and 7,270,219, relating to display of advertising information on screens in elevators. Case settled shortly after Dr. Shamos's deposition. Contact: Steven R. Trybus, Esq., Jenner & Block LLP, 353 N. Clark St., Chicago, IL 60654. (D,R)

63. *Avante Int'l. Technology Corp. v. Premier Election Solutions et al.*, Case 4:06-CV-091367-ERW (E.D. Mo., Eastern Division). Served as an expert for defendants Sequoia Voting Systems and Premier Election Systems in an action alleging infringement of U.S. Patents 7,422,150, and 7,431,209 concerning electronic voting technology. Case settled in December 2009. Contact: Peter T. Ewald, Esq., Oliff & Berridge, PLC, 277 South Washington Street, Suite 500, Alexandria, VA 22314. (R)

64. *Accenture Global Services GmbH et al. v. Guidewire Software, Inc.*, Civ. No. 07-826-SLR (D. Del.). Served as an expert for Accenture in a case alleging misappropriation of trade secrets and infringement of U.S. Patents 7,013,284 and 7,017,111, relating to automated insurance claim handling. The District Court found the asserted system claims invalid under 35 U.S.C. § 101, affirmed by the Federal Circuit at 2011-1486. Case settled in Oct. 2011. Original firm: Morrison & Foerster, LLP. Contact: L. Scott Oliver, Esq., K&L Gates LLP, 630 Hansen Way, Palo Alto, CA 94304. (D,R)

65. *Alexsam, Inc. v. Evolution Benefits, Inc. et al.*, Case No. 2:07cv288-TJW (E.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 6,000,608, relating to multifunction epayment cards. Case settled four weeks after Dr. Shamos's deposition. Original firm: Wolf, Greenfield & Sacks, P.C. Contact: James Foster, Esq., Hayes Messina Gilman Hayes LLC, 200 State St., 6th Floor, Boson, MA 02109. (D,R)

66. *Motivation Innovations, LLC v. DSW Inc. et al.*, C.A. No. 08-334-SLR (D. Del.). Served as an expert for defendant DSW, Inc. in a case alleging infringement of U.S. Patent 5,612,527, relating to a system for redeeming discount offers at point of sale. Case has settled. Contact: Drew Blatt, Ph.D., Esq., Wood, Heron & Evans LLP, 2700 Carew Tower 441 Vine Street Cincinnati, Ohio 45202.

67. *Discovery Communications, Inc. v. Amazon.com, Inc.*, C.A. No. 09-178-ER (D. Del.). Served as an expert for plaintiff Discovery Communications in a case alleging infringement of plaintiff's U.S. Patents 5,986,690, 6,557,173, 7,298,851, 7,299,501, 7,336,788 and 7,401,286, relating to electronic book viewers and electronic book selection and delivery systems, and defendant-counterclaimant's U.S. Patents 6,029,141 and 7,337,133, relating to Internet-based customer referral systems. Case has settled. Contact: Brent P. Lorimer, Esq., Workman | Nydegger, 1000 Eagle Gate Tower, 60 East South Temple Salt Lake City, UT 84111.

68. *Amazon.com v. Discovery Communications, Inc.*, No. 2:09-cv-0681-RSL (W.D. Wash.). Served as an expert for defendant Discovery Communications in a case alleging

infringement of U.S. Patents 6,006,225 and 6,169,986, relating to refinement of online search queries, and U.S. Patents 6,266,649 and 6,317,722., relating to generation of online recommendations. Case has settled. Contact: Brent P. Lorimer, Esq., Workman | Nydegger, 1000 Eagle Gate Tower, 60 East South Temple Salt Lake City, UT 84111.

69. *IMX, Inc. v. E-Loan, Inc. and Banco Popular North America, Inc.*, No. 09-cv-20965 (S.D. Fla.). Served as an expert for defendants in a case alleging infringement of U.S. Patent 5,995,947, relating to an interactive loan processing and mortgage trading system. Case was stayed pending reexamination. On appeal after reexamination, all but four of the asserted claims were cancelled. In CBM2015-00012, all asserted claims were found unpatentable under §101. Case has settled. Contact: Samuel A. Lewis, Esq., Feldman Gale, PA, One Biscayne Tower, 30th Floor, 2 South Biscayne Blvd., Miami, FL 33131. (D,R)

70. *Soverain Software LLC v. CDW Corp. et al.*, C.A. No. 6:07-CV-511 (E.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 5,715,314, 5,909,492, and 7,272,639, relating to methods of conducting electronic commerce. All defendants settled except Newegg, Inc. Dr. Shamos testified on validity at a jury trial in April 2010. Result: all claims valid; the '314 and '492 claims infringed, with a running royalty assessed against Newegg. After trial, the Court found the '639 patent infringed as a matter of law. In January 2013 the Federal Circuit found the asserted claims obvious as a matter of law, The Supreme Court declined review. Contact: Ognian Shentov, Esq., Jones Day, 222 E. 41st St., New York, NY 10017. (D,R,T)

71. *Netcraft Corp. v. AT&T Mobility LLC et al.*, C.A. No. 07-651-GMS (D. Del.). Served as an expert for defendants in a case alleging infringement of U.S. Patents 5,794,221, 6,351,738 and 6,411,940, relating to electronic commerce billing methods. Case settled two months after Dr. Shamos's deposition. Contact: H. Jonathan Redway, Esq., Dickinson Wright PLLC, 1875 Eye St., Washington, DC 20006. (D,R)

72. *ValueClick, Inc. v. Tacoda, Inc., AOL, LLC and Platform-A, Inc.*, Case No. 2:08-cv-04619 DSF (JCx) (C.D. Cal.). Served as an expert for defendants in a case alleging infringement of U.S. Patents 5,848,396 and 5,991,735, relating to software and methods for creating psychographic profiles of network users. Case settled in May 2010. Original firm: Orrick, Herrington & Sutliffe, LLP. Contact: Paul R. Gupta, Esq., DLA Piper, 1251 Avenue of the Americas, New York, NY 10020.

73. *SP Technologies, Inc. v. Garmin Limited et al.*, Civil Action No. 08-CV-3248 (N.D. Ill.). Served as an expert for defendant TomTom, Inc. in a case alleging infringement of U.S. Patent 6,784,873, relating to graphical keyboards on touchscreens. Defendants prevailed on summary judgment of invalidity. Contact: Brian Pandya, Esq., Wiley Rein LLP, 1776 K Street NW, Washington DC 20006. (D,R)

74. *ePlus, Inc. v. Lawson Software, Inc.*, Civil Action No. 3:09-cv-620 (E.D. Va.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 6,023,683, 6,055,516 and 6,505,172, relating to electronic procurement systems. Dr. Shamos testified at a jury trial in Richmond in January 2011. Result: No infringement as to most accused configurations;

infringement as to others. Past damages were precluded by the Court. On appeal. the Federal Circuit found the system claims invalid as indefinite. Contact: Daniel McDonald, Esq., Merchant & Gould PC, 3200 IDS Center, 80 South Eighth Street, Minneapolis, MN, 55402. (D,R,T)

75. *Bed Bath & Beyond, Inc. v. Sears Brands*, LLC, Civil Action 08 CV 5839-SDW-MCA (D. N.J.). Served as an expert for plaintiff in a declaratory judgment action regarding alleged infringement of U.S. Patent 5,970,474, relating to retail gift registry systems. Case has settled. Contact: William Mentlik, Esq., Lerner David Littenberg, Krumholz & Mentlik LLP, 600 South Avenue West, Westfield, NJ 07090. (D,R)

76. *Transauction, LLC v. eBay, Inc.*, Case No. 3:09-cv-3705-SJ (N.D. Cal.). Served as an expert for defendant in a case alleging infringement of U.S. Patent 7,343,339, relating to guarantees in online auctions. Case settled after expert reports were submitted. Firm: Irell & Manella LLP, 1800 Avenue of the Stars, Suite 900, Los Angeles, CA 90067. Contact: Peter E. Gratzinger, Esq., Munger, Tolles & Olson LLP, 355 South Grand Avenue, Los Angeles, CA 90071. (R)

77. *SDG Corporation v. Patrizzi & Co. Auctioneers SA et al.*, ICDR Case No. 50 117 T 00313 09 (Int'l. Centre for Dispute Resolution). Served as an expert for claimant in an arbitration alleging breach of contract to produce software for operating online auctions. Dr. Shamos testified at arbitration in October 2010. Award for SDG on all claims and denial of all of Patrizzi's counterclaims. Contact: Bruce Fox, Esq., Obermayer Rebmann Maxwell & Hippel LLP, One Mellon Center, Suite 5240, Pittsburgh, PA 15219. (D,R,T)

78. *Walker Digital, LLC v. Capital One Services, LLC et al.*, Civil Action 1:10cv212 (JFA) (E.D. Va.). Served as an expert for defendants in a case alleging infringement of U.S. Patents 5,970,478 and 6,374,230, relating to customizing and pricing credit card accounts. Defendants prevailed on summary judgment of non-infringement supported by a declaration from Dr. Shamos. Affirmed by the Federal Circuit on July 28, 2011. Contact: Charles S. Barquist, Esq., Morrison & Foerster LLP, 555 West Fifth Street, Suite 3500, Los Angeles, CA 90013. (R)

79. *Voter Verified, Inc. v. Premier Election Solutions, Inc. et al.*, Case No. 6:09-cv-1968-19KRS (M.D. Fla.). Served as an expert for defendants, manufacturers of voting equipment, in a case alleging infringement of U.S. Patents 6,769,613 and RE40,449, relating to paper trail verification of ballots. The Court denied a Daubert motion to exclude testimony by Dr. Shamos. Summary judgment of non-infringement granted July 28, 2011, affirmed by the Federal Circuit on November 5, 2012. All claims of the '449 patent were found non-statutory by the Federal Circuit in 2018. Contact: Robert M. Evans, Jr., Esq., Stinson LLP, 7700 Forsyth Blvd. Suite 1100, St. Louis, MO 63105. (R)

80. *Elder et al. v. National Conference of Bar Examiners*, No. C 11-00199 SI (N.D. Cal.). Served as an expert for disabled plaintiffs in a case seeking an injunction to permit them to take the bar examination in electronic format. Preliminary injunction granted Feb. 16, 2011. Plaintiff took the bar exam, passed and was awarded $224,000 in attorney's fees. Contact: Daniel F.

Goldstein, Esq., Brown, Goldstein & Levy, LLP, 120 E. Baltimore St., Suite 1700, Baltimore, MD 21202. (R)

81. *Ameranth, Inc. v. Menusoft Systems Corp., et al.*, Civil Action 2-07-CV-271 TJW/CE (E.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 6,384,850, 6,871,325 and 6,982,733, relating to synchronous updating of restaurant menus on wireless devices. After trial, the jury found the patents not infringed. Case settled while an appeal to the Federal Circuit was pending. Contact: John W. Osborne, Esq., Osborne Law LLC, 33 Habitat Lane, Cortlandt Manor, NY 10567. (D,R,T)

82. *BuyFigure.com, Inc. v. Autotrader.com et al.*, Case No. 06391 (Ct. of Common Pleas of Philadelphia County, PA, 2010). Served as an expert for defendants in a case alleging misappropriation of trade secrets concerning a method of selling automobiles over the Internet. Summary judgment was granted in Defendants' favor in August 2012. Contact: Howard D. Scher, Esq., Buchanan Ingersoll & Rooney, P.C., Two Liberty Place, 50 S. 16th Street, Philadelphia, PA 19102. (R)

83. *Soverain Software LLC v. J.C. Penney Corp., Inc. et al.*, C.A. No. 6:09-CV-274 (E.D. Tex.). Served as an expert for plaintiff on validity issues in a case alleging infringement of U.S. Patents 5,715,314, 5,909,492, and 7,272,639, relating to methods of conducting electronic commerce. The '639 patent was dropped before trial and all defendants settled except Avon Products and Victoria's Secret. After trial, the jury found all claims valid and infringed, and awarded damages of $9.2 million against Victoria's Secret and $8.7 million against Avon. Contact: Robert B. Wilson, Esq., Quinn Emanuel Urquhart & Sullivan, LLP, 51 Madison Avenue, 22nd Floor, New York, NY 10010. (D,R,T)

84. *AOL, LLC, et al. v. Yahoo! Inc. et al.*, No. 09 Civ. 3774 (WHP) (S.D.N.Y). Served as an expert for declaratory judgment plaintiff AOL in a case alleging infringement of U.S. Patents 6,078,866, 6,269,361, 6,546,386, 6,907,566, 7,043,483, 7,107,264, 7,373,599, and 7,702,541, relating to online advertising placement and targeted e-commerce. Case settled in Feb. 2011. Original firm: Orrick, Herrington & Sutliffe LLP. Contact: William B. Tabler II, Esq., Flextronics, 6201 America Center Drive, San Jose, CA 95002.

85. *Accenture Global Services GmbH et al. v. Guidewire Software, Inc.*, Civ. No. 09-848-SLR (D. Del.). Served as an expert for Accenture in a case alleging infringement of U.S. Patent 7,617,240, relating to automated insurance claim handling. Case settled in Oct. 2011. Original firm: Morrison & Foerster, LLP. Contact: L. Scott Oliver, Esq., K&L Gates LLP, 630 Hansen Way, Palo Alto, CA 94304. (D,R)

86. *Amdocs (Israel) Limited v. Openet Telecom, Inc. et al.*, Case 1:10-cv-00910-LMB-TRJ (D. Del.). Served as an expert for Defendant Openet in a case alleging infringement of U.S. Patents 6,836,797 and 7,631,065, relating to aggregated billing for network services. Summary judgment of non-infringement granted in favor of Defendants in Sept. 2012. The Court's opinion cites Dr. Shamos' testimony. Judgment reversed on appeal in 2014, but on remand, all claims were invalidated as claiming non-statutory subject matter. After a second appeal, the

§101 ruling was reversed. Case settled during trial in 2018. Contact: Kevin Anderson, Esq., Duane Morris LLP, 505 9th Street, N.W., Suite 1000, Washington, DC 20004-2166 (D,R)

87. *Cross-Atlantic Capital Partners, Inc. v. Facebook, Inc. et al.*, Case 07-CV-2768 JP (E.D. Pa.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 6,519,629, relating to establishment of online communities. Asserted claims were cancelled upon reexamination. Case has been dismissed. Original firm: McShea/Tecce PC. Contact: Frederick Tecce, Esq., Panitch Schwarze Belisario & Nadel LLP, One Commerce Square, 2005 Market Street, Suite 2200, Philadelphia, PA 19103. (R)

88. *Chavez et al. v. Bennett et al.*, CV 2006-007000 (Ariz. Super., Maricopa Cty.). Served as an expert for defendant Secretary of State of Arizona and county defendants in a case alleging that the electronic voting systems used in Arizona violated the rights of voters. Case was voluntarily dismissed by plaintiffs in May 2011. Contact: Laurence G. Tinsley, Jr., Esq, Senior General Counsel, Maricopa County Office of General Litigation Services, 301 W. Jefferson St., Phoenix, AZ 85003.

89. *Bonnette v. District of Columbia Court of Appeals and National Conference of Bar Examiners*, No. 11-cv-01053-CKK (D. D.C.). Served as an expert for a disabled plaintiff in a case seeking a preliminary injunction permitting her to take the bar examination in electronic format. Injunction granted. Case subsequently settled with Plaintiff receiving $141,000 in attorneys' fees and costs. Contact: Daniel F. Goldstein, Esq., Brown, Goldstein & Levy, LLP, 120 E. Baltimore St., Suite 1700, Baltimore, MD 21202.

90. *Jones v. National Conference of Bar Examiners et al.*, No. 5:11-cv-00174-cr (D. Vermont). Served as an expert for a disabled plaintiff in a case seeking an injunction permitting to take the bar examination using assistive technology. The preliminary injunction was granted. Plaintiff was awarded $275,000 in attorneys' fees and costs. Contact: Daniel F. Goldstein, Esq., Brown, Goldstein & Levy, LLP, 120 E. Baltimore St., Suite 1700, Baltimore, MD 21202. (R)

91. *AlmondNet, Inc. v. Microsoft Corporation*, Case 10-CV-298 (W.D. Wisc.). Served as an expert for plaintiff and counterclaim defendant AlmondNet in a case alleging infringement of U.S. Patents 6,973,436, 7,072,853, 7,454,364 and 7,822,637 by Microsoft, relating to bidding for Internet ad placement, and infringement of U.S. Patent 6,632,248 by AlmondNet, relating to customization of network documents via a unique user identifier. Microsoft obtained summary judgment of non-infringement. Contact: Meredith Zinanni, Esq., Kirkland & Ellis LLP, 300 N. LaSalle, Chicago, IL 60604.

92. *Kelora Systems, LLC. v. Target Corporation et al.*, Case 10-CV-683 (W.D. Wisc.). Served as an expert for defendant Mason Companies, Inc. in a case alleging infringement of U.S. Patent 6,275,821, relating to guided parametric searching in online catalogs. Case settled as to this defendant in July 2011. The Court granted summary judgment of invalidity and non-infringement as to the other defendants, affirmed by the Federal Circuit. Contact: Shane A. Brunner, Esq., Merchant & Gould, 10 East Doty St., Suite 600, Madison, WI 53703.

93. *TNS Media Research, LLC et al. v. TRA Global, Inc.*, Case 1:2011-CV-4039 (SAS) (S.D. N.Y.). Served as an expert for declaratory judgment plaintiffs in case alleging infringement of U.S. Patent 7,729,940, relating to anonymous matching of program viewing data from television set-top boxes with purchase data from other sources. Patentee's motion for preliminary injunction was denied on Sept. 23, 2011. Plaintiffs' motion for summary judgment of non-infringement was granted on October 3, 2013. Reversed and remanded by the Federal Circuit. Contact: Michael Albert, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210. (R)

94. *Accenture Global Services GmbH et al. v. Guidewire Software, Inc.*, Case 3:11-03563-JSW (N.D. Cal.); *Guidewire Software, Inc. v. Accenture PLC et al.*, Case 4:11-cv-04686-LB (N.D. Cal.). Served as an expert for Accenture in related cases alleging infringement by Guidewire of U.S. Patents 6,574,636, 7,409,355 and 7,979,382, relating to systems for insurance claim handling and alleging infringement by Accenture of U.S. Patents 5,630,069, 5,734,837, 6,058,413 and 6,073,109, relating to workflow management systems. Cases settled in Oct. 2011. Contact: Colleen Garlington, Esq., Kirkland & Ellis LLP, 300 N. LaSalle St., Chicago, IL 60604.

95. *XPRT Ventures, LLC v. eBay, Inc. et al.*, C.A. 1:2010-cv-595 (SLR) (D. Del.). Served as an expert for Defendants eBay and PayPal in a case alleging infringement of U.S. Patents 7,483,856, 7,512,563, 7,567,937, 7,599,881, 7,610,244, 7,627,528, relating to methods of paying for items purchased through electronic auctions. Case has settled. Contact: Adrian Percer, Esq., Weil, Gotshal & Manges, LLP, 201 Redwood Shores Parkway, Redwood Shores, CA 94065. (D,R)

96. *Rich Media Club, LLC et al. v. Nikolai Mentchoukov et al.*, Civil No. 2:11-cv-01202-SA (D. Utah). Served as an expert for Plaintiffs in a case alleging breach of an employment contract, unfair competition concerning systems for placing advertisements on web pages and infringement of U.S. Patent 7,313,590, relating to communication between client and server computers without requiring a browser. Contact: Jared Richards, Esq., Bennett Tueller Johnson & Deere, LLC, 3165 East Millrock Drive, Suite 500, Salt Lake City, Utah 84121. (R)

97. *Franklin Inventions LLC v. Election Systems & Software, Inc.*, Case No: 2:09-cv-377 (E.D. Tex.). Served as an expert for Defendants in a case alleging infringement of U.S. Patents 6,968,999, 7,243,846 and 7,575,164, relating to voter-verifiable voting systems. Case settled after a declaration concerning invalidity was submitted by Dr. Shamos. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (R)

98. *Illinois Computer Research, LLC v. HarperCollins Publishers, LLC, et al.*, Case No.: 10-cv-9124 (S.D.N.Y). Served as an expert for Defendants in a case alleging infringement of U.S. Patent 7,111,252, relating to limiting access to electronic books. Case settled after Markman. Contact: Brian S. Rosenbloom. Esq., Rothwell, Figg, Ernst & Manbeck, P.C., 607 14th Street, N.W., Suite 800, Washington, DC 20005. (R)

99. *Realtime Data, LLC d/b/a IXO v. Morgan Stanley et al.*, Case No.: 11 Civ. 6696 (RJH), *Realtime Data, LLC d/b/a IXO v. CME Group Inc. et al.*, Case No.: 11 Civ. 6701 (RJH), *Realtime Data, LLC d/b/a IXO v. Thompson Reuters, et al.*, Case No.: 1:2011-cv-06704 (RJH) (S.D.N.Y). Served as an expert for Plaintiff in three consolidated cases alleging infringement of U.S. Patents 7,417,568, 7,714,747, and 7,777,651, relating to compression and decompression of financial data streams. Summary judgment granted for defendants, upheld by the Federal Circuit. Contact: Dirk D. Thomas. Esq., McKool Smith, 1999 K Street, N.W., Suite 600, Washington, DC 20006. (D,R,T)

100. *Mulhern Belting, Inc. v. Tele-Data Solutions, Inc.*, Civil Action L-2258-10 (Sup. Ct. Bergen Cty. NJ). Served as an expert for defendant Vertical Communications, Inc. in a case alleging breach of contract and fraud in connection with the installation of an integrated voice-over-IP (VoIP) telecommunications system. Case has settled. Contact: John J. Abromitis, Esq., Courter, Kobert & Cohen P.C., 1001 Route 517, Hackettstown, NJ 07840. (R)

101. *Decision Support, LLC v. Election Systems & Software, Inc.*, Case No: 3:10cv90 (W.D. N.C.). Served as an expert for Defendants in a case alleging infringement of U.S. Patent 7,497,377, relating to electronic voter registration and pollbook systems. Case has settled. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (R)

102. *Rovi Corporation et al. v. Amazon.com, Inc. et al.*, Case No. 11-cv-00003-RGA (D. Del.). Served as an expert for Plaintiffs in a case alleging infringement of U.S. Patents 5,988,078, 6,275,268, 6,769,128, 7,493,643 and 7,603,690, relating to customized on-screen television guides. The parties stipulated to entry of judgment of noninfringement. Contact: Ragesh L. Tangri, Esq., Durie Tangri LLP, 217 Leidesdorff Street, San Francisco, CA 94111.

103. *Certain Products Containing Interactive Program Guide and Parental Control Technology*, USITC Inv. No. 337-TA-820. Served as an expert for Complainants Rovi Corporation et al. and against Vizio, Inc. et al. in an International Trade Commission proceeding involving alleged infringement of U.S. Patents 6,701,523, 7,047,547, 7,493,643 and RE41,993, relating to v-chips and electronic TV program guides. Case has settled. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304. (R)

104. *Rovi Corporation et al. v. Roku, Inc.*, Case No. 12-cv-2185 EJD (N.D. Cal.). Served as an expert for Plaintiffs in a case alleging infringement of U.S. Patent 6,898,762, relating to a client/server electronic television program guide. Voluntarily dismissed by plaintiff without prejudice. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304.

105. *Rovi Corporation et al. v. LG Electronics, Inc. et al.*, Case No. 12-cv-00545-SLR (D. Del.). Served as an expert for Plaintiffs in a case alleging infringement of U.S. Patents 6,898,762, 7,065,709, 7,225,455, 7,493,643 and 8,112,776, relating to electronic television program guides. Case has settled. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304.

106. *Rovi Corporation et al. v. Vizio, Inc.*, Case No. 12-cv-00546-SLR (D. Del.). Served as an expert for Plaintiffs in a case alleging infringement of U.S. Patents 6,898,762, 7,065,709, 7,103,906 and 8,112,776, relating to electronic television program guides. Case has settled. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304.

107. *Rovi Corporation et al. v. Mitsubishi Electric Corp. et al.*, Case No. 12-cv-00547-SLR (D. Del.). Served as an expert for Plaintiffs in a case alleging infringement of U.S. Patents 6,701,523, 7,225,455 and 7,493,643, relating to electronic television program guides. Case has settled. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304.

108. *Netflix, Inc. v. Rovi Corporation et al.*, Case No. 11-cv-06591-PJH (N.D. Cal.). Served as an expert for Defendants in a declaratory judgment case seeking a declaration of non-infringement of U.S. Patents 6,305,016, 6,898,762, 7,100,185, 7,103,906 and 7,945,929, relating to electronic television program guides. Summary judgment was granted declaring all asserted claims invalid under 35 U.S.C. §101, affirmed by the Federal Circuit. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304. (R)

109. *Certain Products Containing Interactive Program Guide and Parental Control Technology*, USITC Inv. No. 337-TA-845. Served as an expert for Complainants Rovi Corporation et al. and against Netflix, Inc. et al. in an International Trade Commission proceeding involving alleged infringement of U.S. Patents 6,701,523, 6,898,762, 7,065,709, 7,103,906, 7,225,455, 7,493,643 and 8,112,776, relating to v-chips and electronic TV program guides. On Initial Determination, all claims Dr. Shamos testified about were found valid. The import requirement was found not satisfied and no infringement was found. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304. (D,R,T)

110. *Yardi Systems, Inc. v. Realpage, Inc. et al.*, Case No. 2:11-cv-0090-ODW-JEM (C.D. Cal.). Served as an expert for Defendants in an action alleging misappropriation of trade secrets, unfair competition, violation of the Computer Fraud and Abuse Act, the Comprehensive Computer Data Access and Fraud Act (Cal. Penal Code §502) and the Digital Millennium Copyright Act, arising out of provision of cloud-based property management systems. Case has settled. Contact: Susan van Keulen, Esq., O'Melveny & Myers LLP, 2765 Sand Hill Road, Menlo Park, CA 94025.

111. *Long Range Systems, LLC v. HME Wireless, Inc.*, Civil Action 3:12-cv-03659-P (N.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 6,712,278, relating to a wireless system for locating a customer's table in a restaurant. Case was dismissed by plaintiff. Contact: David Cabello, Esq., Wong, Cabello, Lutsch, Rutherford & Brucculeri, LLP, 20333 SH 249, Suite 600, Houston, Texas 77070. (R)

112. *EdiSync Systems, LLC v. Centra Software, Inc. et al.*, Civil Action 03-cv-01587-WYD-MEH (D. Colo.). Served as an expert for Defendant Saba Software Inc. in a case alleging infringement of U.S. Patent 5,799,320, relating to multi-author document editing systems. Case has

settled. Contact: Robert M. Abrahamsen, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210. (D,R)

113. *TecSec, Inc. v. IBM et al.*, Case No. 1:10-cv-115-LMB/TCB (E.D. Va.). Served as an expert for Defendant SAS Institute, Inc. in a case alleging infringement of U.S. Patents 5,369,702, 5,680,452, 5,717,755 and 5,898,781, relating to the Distributed Cryptographic Object Method, allowing embedding of encrypted objects within other objects. The Court entered judgment of non-infringement after Markman. Affirmed by the Federal Circuit at 2011-1303. Contact: Thomas R. Goots, Esq., Jones Day, North Point, 901 Lakeside Avenue, Cleveland, Ohio 44114-1190.

114. *Integrated Technological Systems, Inc. v. Green Dot Corporation*, Civ. Action No. 2:11-cv-01626-GMN-(GWF) (D. Nev.). Served as an expert for Defendant in a case alleging infringement of U.S. Patent 7,912,786, relating to an electronic payment system for transferring money between debit card accounts. Case has settled. Contact: Benjamin J. Sodey, Esq., Bryan Cave LLP, One Metropolitan Square (211 North Broadway), Suite 3600, St. Louis, MO 63102-2750.

115. *Hausen et al. v. PS Illinois Trust*, Case No. 11-cv-06888 (N.D. Ill.). Served as an expert for Plaintiff in a case concerning the reasonableness of credit card and email notification practices employed by a public storage facility prior to selling customers' stored goods. Case has settled. Contact: Jeffrey S. Becker, Esq., Swanson, Martin & Bell, LLP, 330 N. Wabash, Suite 3300, Chicago, IL 60611. (D,R)

116. *Linksmart Wireless Technology, LLC v. T-Mobile, USA, Inc. et al.*, Case 2:08-cv-264-DF-CE (E.D. Texas). Served as an expert for Defendant Choice Hotels International, Inc. in a case alleging infringement of U.S. Patent 6,779,118, relating to rule-based redirection of Internet service requests based on a user ID. Case has settled. Contact: Gregory R. Lyons, Esq., Wiley Rein LLP, 1776 K Street NW, Washington DC 20006.

117. *SAP America, Inc. v. Purple Leaf, LLC et al.*, Case No. 4:11-cv-04601-PJH (N.D. Cal.). Served as an expert for declaratory judgment plaintiff SAP in a case alleging infringement of U.S. Patents 7,603,311 and 8,027,913, relating to methods for conducting payment transactions over the Internet. Case has settled. Original firm: Simpson Thatcher & Bartlett LLP. Contact: Brian McCloskey, Esq., Greenberg Traurig, LLP, MetLife Building, 200 Park Ave., New York, NY 10166.

118. *Ameranth, Inc. v. PAR Technology Corp., et al.*, Civil Action 2-10-CV-294 JRG-RSP (E.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 6,384,850 and 6,871,325, relating to synchronous updating of hospitality applications and data on wireless devices. Case settled after expert reports were served. Contact: John W. Osborne, Esq., Osborne Law LLC, 33 Habitat Lane, Cortlandt Manor, NY 10567. (R)

119. *Digital-Vending Services International, LLC, v. The University of Phoenix, Inc. et al.*, Civil Action 2:09-cv-555-AWA-TEM (E.D. Va.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 6,170,014, 6,282,573 and 6,606,664, relating to content delivery

methods particularly applicable to online courseware. Summary judgment of non-infringement granted October 4, 2013. Contact: Andrew G. DiNovo, Esq., DiNovo Price Ellwanger & Hardy LLP, 7000 N. MoPac Expressway, Suite 350, Austin, TX 78731. (D,R)

120. *Analytical Mechanics Associates, Inc. v. Rhythm Engineering, LLC et al.*, Case No. 4:12-cv-00008 (E.D. Va.). Served as an expert for defendants in a case alleging breach of a contract relating to development of an image processing system to detect vehicles at intersections and control traffic signals. Case was resolved by binding arbitration. Contact: John K. Power, Esq., Husch Blackwell LLP, 4801 Main Street, Suite 1000, Kansas City, MO 64112. (D,R,T)

121. *Protegrity Corporation v. Voltage Security, Inc.*, Case No. 3:10-CV-755 (RNC) (D. Conn.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 6,321,201, 6,963,980 and 7,325,129, relating to methods of encrypting databases. Case settled during trial. Contact: Edward G. Poplawski, Esq., Wilson Sonsini Goodrich & Rosati Professional Corporation, 650 Page Mill Road, Palo Alto, CA 94304-1050. (D,R,T)

122. *Progressive Casualty Insurance Company v. Allstate Insurance Company et al.*, Case No. 1:11-cv-00082-BYP (N.D.Ohio). Served as an expert for defendant Allstate in a case alleging infringement of U.S. Patent 6,064,970, relating to determining the cost of automobile insurance by monitoring the location and activity of a vehicle, and U.S. Patent 7,124,088, relating to online modification and quoting of insurance policies. Case has settled as to Allstate. Contact: James Medek, Esq., Kirkland & Ellis LLP, 300 North LaSalle Chicago, IL 60654.

123. *Symantec Corporation v. Acronis, Inc. et al.*, Case No. 3:11-cv-05310 EMC (N.D. Cal.). Served as an expert for plaintiff and infringement counterclaim defendant Symantec in a case alleging infringement of U.S. Patents 6,615,365, 7,047,380, 7,246,211 and 7,266,655, relating to online disk backup, imaging and recovery systems, U.S. Patent 7,093,086, relating to backup of virtual machines, U.S. Patent 7,322,010, relating to graphic views of computer configurations and U.S. Patent 7,565,517, relating to retargeting hardware configuration images to new hardware. Case has settled. Contact: Jennifer Kash, Esq., Quinn Emanuel Urquhart & Sullivan LLP, 50 California Street, 22nd Floor, San Francisco, California 94111. (D,R)

124. *Secure Axcess, LLC v. Bank of America Corp. et al.*, Civil Action No. 6:10-cv-670-LED (E.D. Tex.). Served as an expert for defendants Zions First National Bank and Amegy Bank N.A. in a case alleging infringement of U.S. Patent 7,631,191, relating to authenticating web pages. Case has settled as to those defendants. Contact: Brian Pandya, Esq., Wiley Rein LLP, 1776 K Street NW, Washington DC 20006.

125. *The MoneySuite Company v. Insurance Answer Center, LLC et al.*, Case No. SACV 11-1847-AG (C.D. Cal.). Served as an expert for defendants, including The Allstate Corporation, in a case alleging infringement of U.S. Patent 6,684,189, relating to online quoting of insurance policy rates. Case has settled. Contact: Garret A. Leach, Esq., Kirkland & Ellis LLP, 300 N. LaSalle, Chicago. IL 60654. (D,R)

126. *e-LYNXX Corporation v. Innerworkings, Inc. et al.*, CA 1:10-cv-02535-CCC (M.D. Pa.). Served as an expert for defendants, including R.R. Donnelley & Sons Company, in a case

alleging infringement of U.S. Patents 7,451,106 and 7,788,143, relating to electronic procurement of customized goods and services. The Court granted summary judgment of non-infringement in July 2013. Contact: James R. Nuttall, Esq., Steptoe & Johnson, LLP, 115 South LaSalle Street, Suite 3100, Chicago, IL 60603. (R)

127. *Vasudevan Software, Inc. v. Microstrategy, Inc.*, Case No. 3:11-cv-06637-RS-PSG (N.D. Cal.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 6,877,006, 7,167,864, 7,720,861 and 8,082,268, relating to methods of online analytical processing (OLAP). The patents were found invalid on summary judgment. On appeal, the Federal Circuit upheld the Court's claim constructions and judgment of non-infringement. Declaratory judgment counterclaims voluntarily dismissed. Contact: Kevin A. Smith, Esq., Quinn Emanuel Urquhart & Sullivan, LLP, 50 California Street, San Francisco, CA 94111. (R)

128. *Digonex Technologies, Inc. v. Qcue, Inc.*, Case No. 1:12-cv-00801-SS (W.D. Texas). Served as an expert for plaintiff in a case alleging infringement of U.S Patents 8,095,424 and 8,112,303, relating to computerized methods for dynamic pricing. In a Markman order, the Court found the claims indefinite. Contact: David D. Schumann, Fenwick & West LLP, 555 California Street, 12th Floor, San Francisco, CA 94104. (D,R,T)

129. *Peter Mayer Publishers, Inc. v. Daria Shilovskaya et al.*, Case No. 12-CV-8867-PG (S.D. N.Y.). Served as an expert for declaratory judgment defendants in a case of first impression to determine whether a reliance party under 17 U.S.C. §104A(d)(3)(B) may issue an ebook version of a work to which copyright has been restored. The Court ruled that ebooks are not transformative and hence not derivative works. Contact: Timothy O'Donnell, Esq., 40 Exchange Place, 19th Fl., New York, NY 10005. (R)

130. *SIPCO, LLC v. Control4 Corporation et al.*, CA 1:11-cv-00612-JEC (N.D. Georgia). Served as an expert for defendants Schneider Electric Buildings Americas, Inc. and Schneider Electric USA, Inc. in a case alleging infringement of U.S. Patents 7,103,511, 7,468,661 and 7,697,492, relating to systems for monitoring remote sensors and controlling remote devices. Case has settled. Contact: Benjamin Bradford, Esq., Jenner & Block LLP, 353 N. Clark St., Chicago, IL 60654-3456.

131. *Unified Messaging Solutions LLC v. Google, Inc. et al.*, Case 1:12-cv-06286 (N.D. Ill.). Served as an expert for defendant eBay, Inc. in a case alleging infringement of U.S. Patents 6,857,074, 7,836,141, 7,895,306, 7,895,313, and 7,934,148, relating to message storage and delivery systems. Case has settled as to defendant eBay, Inc. Contact: Yar R. Chaikovsky, Esq., McDermott Will & Emery LLP, 275 Middlefield Road, Suite 100, Menlo Park, CA 94025.

132. *Credit Card Fraud Control Corporation v. PayPal, Inc.*, Case No. 9:12-CV-81143 (S.D. Fla.). Served as an expert for defendant PayPal in a case alleging infringement of U.S. Patent 8,229,844, relating to reduction of fraud in online transactions. Plaintiff dismissed the case with prejudice based on prior art located by PayPal. Contact: Adrian Percer, Esq., Weil, Gotshal & Manges, LLP, 201 Redwood Shores Parkway, Redwood Shores, CA 94065.

133. *Comscore, Inc. v. Integral Ad Science, Inc.*, Civil Action 2:12-cv-00351-HCM-DEM (E.D. Va.). Served as an expert for defendant Integral in a case alleging infringement of U.S. Patents 6,108,637, 6,115,680, 6,327,619, 6,418,470, 7,386,473, 7,613,635, 7,716,326 and 7,756,974, relating to determining whether a portion of a displayed page is visible to a user. Case has settled as to defendant Integral. Contact: Robert M. Abrahamsen, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210.

134. *Ariba, Inc. v. Coupa Software, Inc.*, Case No. 3:12-cv-01484 JST (N.D. Cal.). Served as an expert for plaintiff Ariba in a case alleging infringement of U.S. Patent 7,117,165, relating to electronic methods for approving requisitions and generating purchase orders. Case has settled. Contact: Amy Van Zant, Esq., Covington & Burling LLP, 333 Twin Dolphin Drive, Redwood Shores, CA 94605-1418. (D,R)

135. *Lowe v. National Board for Respiratory Care, Inc. et al.*, Docket 1:12-cv-00345-DBH (D. Maine). Served as an expert for disabled plaintiff in a case seeking an injunction permitting to take a professional qualification examination using assistive computer technology. Case settled shortly after Dr. Shamos's declaration in support of preliminary injunction was filed. Contact: Kristin Aiello, Esq., Managing Attorney, Disability Rights Center, 24 Stone St., Augusta, ME 04338. (R)

136. *Checkfree Corporation et al. v. Metavante Corporation et al.*, Case No. 3:12-cv-15-J-34JBT (M.D. Fla.) Served as an expert for defendant Metavante in a case alleging infringement of U.S. Patents 7,383,223, 7,792,749, 7,853,524 and 7,996,311, relating to transferring funds in electronic payment networks. Defendants have counterclaimed, alleging infringement of U.S. Patents. 7,370,014, 7,734,543 and 7,958,049, relating to electronic invoice presentment. All claims of all four patents asserted by Plaintiff have been found invalid by the Patent Office. Case was stayed pending appeal, followed by voluntary dismissal by Plaintiff. Contact: Jeffrey A. Berkowitz, Esq., Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., Two Freedom Square, 11955 Freedom Drive, Reston, VA 20190-5675. (D,R)

137. *PPS Data, LLC v. Passport Health Communications, Inc.*, Case No. 2:12-cv-00438-DN (C.D. Utah). Served as an expert for defendant Passport in a case alleging infringement of U.S. Patents 6,341,265 and 7,194,416, relating to preparing and correcting health insurance claim forms. Case settled shortly after Dr. Shamos's claim construction report was served. Contact: Edward J. Pardon, Esq., Merchant & Gould, 10 East Doty Street, Suite 600, Madison, WI 53703. (R)

138. *Lodsys, LLC v. Combay, Inc. et al.*, Civil Action 2:11-cv-272 (E.D. Texas). Served as an expert for defendant Symantec Corporation in a case alleging infringement of U.S. Patents 7,222,078 and 7,620,565, relating to gathering feedback from products through a user interface. Case settled two weeks after Dr. Shamos's deposition. Contact: David D. Schumann, Fenwick & West LLP, 555 California Street, 12th Floor, San Francisco, CA 94104. (D,R)

139. *Long Range Systems, LLC v. HME Wireless, Inc.*, Civil Action 3:12-cv-04162M (N.D. Tex.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 6,542,751 and 7,062,281, relating to methods of paging customers at a restaurant. Case was dismissed by

plaintiff after a tentative Markman ruling. Contact: David Cabello, Esq., Wong, Cabello, Lutsch, Rutherford & Brucculeri, LLP, 20333 SH 249, Suite 600, Houston, Texas 77070. (R)

140. *Symantec Corporation v. Veeam Software Corporation*, Case No. 3:12-cv-0700-SI (N.D. Cal.). Served as an expert for plaintiff Symantec in a case alleging infringement of U.S. Patents 6,931,558, relating to methods for restoring network devices after failure, 7,024,527, relating to methods of backing up disk while applications are active, 7,093,086, relating to methods for backing up virtual machines, 7,254,682, relating to snapshot disk backup, 7,480,822, relating to restoring running states of computing systems, 7,831,861, relating to restoring application data and 8,117,168, relating to virtual disk backups. Case is stayed pending PTAB review. All asserted claims have been found unpatentable. On appeal to the Federal Circuit, the PTAB's claim construction and obviousness determinations were upheld, case remanded to allow amendment of claims. Case subsequently settled. Contact: Jennifer Kash, Esq., Quinn Emanuel Urquhart & Sullivan LLP, 50 California Street, 22nd Floor, San Francisco, California 94111. (R)

141. *EMG Technology, LLC v. Green Mountain Coffee Roasters and Keurig, Inc.*, Case No. 6:13-cv-144 (E.D. Texas) (Lead case: 6:13-cv-134). Served as an expert for Defendants in a case alleging infringement of U.S. Patent 7,441,196, relating to a method of navigating a Web page linked to a sister web site. Case has settled. Contact: Michael A. Albert, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210.

142. *eDirect Publishing, Inc. v. Live Career, Ltd., et al.*, Case No. 12-CV-1123-JAH-JMA (S.D. Cal.). Served as an expert for plaintiff eDirect in a case alleging infringement of U.S. Patents 6.363,376 and 6,757,674, relating to automatic submission of information to career websites. Case has settled. Contact: Ryan Baker, Esq., Baker Marquart LLP, 10990 Wilshire Blvd., Los Angeles, CA 90024. (D,R)

143. *Motivation Innovations, LLC v. Ulta Salon Cosmetics and Fragrance, Inc. et al.*, C.A. No. 11-615-SLR-MPT (D. Del.). Served as an expert for defendant Ulta in a case alleging infringement of U.S. Patent 5,612,527, relating to a system for redeeming discount offers at point of sale. The Court granted summary judgment of noninfringement. Contact: Julie Heaney, Esq., Morris, Nichols, Arsht & Tunnell, LLP, 1201 North Market Street, Wilmington, DE 19899-1347. (D,R)

144. *Computer Software Protection, LLC v. Autodesk, Inc.*, C.A. No. 12-452-SLR (D. Del.). Served as an expert for Defendant Autodesk in a case alleging infringement of U.S. Patent 6,460,140, relating to unlocking the use of software remotely using validation number, a registration key and a license key. Case has settled. Contact: Cheryl T. Burgess, Esq., Knobbe, Martens, Olson & Bear, L.L.P., 2040 Main Street, 14th Floor Irvine, CA 92614. (R)

145. *Voltage Security, Inc.* v. *Protegrity Corporation*, CBM2014-0024, Patent Trial and Appeal Board. Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 8,402,281, relating to methods of encrypting databases. Matter has settled. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati Professional Corporation, 650 Page Mill Road, Palo Alto, CA 94304-1050. (R)

146. *United Video Properties, Inc. et al. v. Haier Group Corp. et al.*, C.A. No. 11-1140-KAJ (D.Del.). Served as an expert for Plaintiffs in a case alleging infringement of U.S. Patents 6,701,523 and 7,047,547, relating to television parental control technology. Case has settled. Contact: Hong S. Lin, Esq., Paul Hastings LLP, 1117 S. California Avenue, Palo Alto, CA 94304. (D,R)

147. *Droplets, Inc. v. E*TRADE Financial Corporation et al.*, Case No.: 1:12-CV-02326-CM (S.D.N.Y.). Served as an expert for defendants in an action alleging infringement of U.S. Patents 6,687,745 and 7,502,838, and 8,402,115, relating to delivering interactive links for presenting applications on a client computer. Defendants prevailed on a summary judgment of non-infringement on the '745 Patent. All claims of the '115 and '838 Patents were found invalid after IPRs, affirmed by the Federal Circuit in 2016-2504 and 2016-2602. Contact: Michael Levin, Esq., Wilson Sonsini Goodrich & Rosati Professional Corporation, 650 Page Mill Road, Palo Alto, CA 94304-1050. (D,R,T)

148. *Symantec Corporation v. Acronis, Inc. et al.*, Case No. 3:11-cv-05331 JST (N.D. Cal.). Served as an expert for plaintiff and infringement counterclaim defendant Symantec in a case alleging infringement by Symantec of U.S. Patents 7,366,859 and 7,831,789, relating to incremental disk backup, and infringement by Acronis of U.S. Patent 7,024,527, and 7,996,708, relating to disk backup and restore, U.S. Patent 7,454,592, and U.S. Patent 7,941,459, relating to single instance disk storage, and U.S. Patent 7,680,957, relating to modifiable representations of computer configurations. Case has settled. Contact: Jennifer Kash, Esq., Quinn Emanuel Urquhart & Sullivan LLP, 50 California Street, 22nd Floor, San Francisco, California 94111. (D,R)

149. *Jazz Pharmaceuticals, Inc. v. Roxane Laboratories, Inc.*, CA 2:10-cv-06108-ES-MCA (D. N.J.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 7,668,730, 7,765,106, 7,765,107, 7,797,171 and 7,895,059, relating to methods of controlling the distribution of sensitive drugs. Case has settled. Contact: Alan B. Clement, Esq., Locke Lord LLP, Brookfield Place, 200 Vesey Street, 20th Floor, New York, NY 10281-2101. (R)

150. *TuitionFund, LLC v. SunTrust Banks, Inc. et al.*, CA 3:11-cv-00069 (M.D. Tenn.). Served as an expert for defendants Cardlytics, Inc., Regions Financial Corp., and Regions Bank in a case alleging infringement of U.S. Patents 7,499,872, 7,653,572 and 7,899,704, relating to methods for awarding rebates for credit and debit card purchases. Case settled. Contact: Michael S. Connor, Esq., Alston & Bird LLP, Bank of America Plaza, 101 South Tryon Street, Suite 4000, Charlotte, NC 28280-4000. (D,R)

151. *Pollin Patent Licensing, LLC et al. v. AT&T Corporation et al.*, Case No. 1:11-cv-07855 (N.D. Ill.). Served as an expert for defendants in a case alleging infringement of U.S. Patent 7,117,171, relating to verifying financial institution identification in electronic payment systems. Case has settled. Contact: James L. Howard, Esq., Kilpatrick Townsend & Stockton LLP, 1001 West Fourth Street Winston-Salem, NC, 27101.

152. *PPS Data, LLC v. Bluepoint Solutions, Inc.*, Case 2:13-cv-01351 (D. Nev.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 7,181,430, 7,216,106,

7,440,924, 7,624,071 and 8,126,809, relating to methods for processing check images in electronic payment systems. Case has settled. Contact: Anthony H. Son, Esq., Maddox Edwards, PLLC, 1900 K Street NW, Suite 725, Washington, DC 20006. (Original firm: Wiley Rein).

153. *e-LYNXX Corporation v. Ariba, Inc.*, CA 1:12-cv-01771-CCC (M.D. Pa.). Served as an expert for defendant Ariba, in a case alleging infringement of U.S. Patents 7,451,106, 7,788,143 and 8,209,227, relating to electronic procurement of customized goods and services. Case has settled. Contact: Amy Van Zant, Esq., Covington & Burling LLP, 333 Twin Dolphin Drive, Redwood Shores, CA 94605-1418.

154. *EMG Technology, LLC v. AutoZone, Inc.*, C.A. 6:13-cv-134 (E.D. Tex.) (Lead case: 6:12-cv-543). Served as an expert for defendant AutoZone in a case alleging infringement of U.S. Patent 7,441,196, relating to transcoding web sites into mobile sites. Defendant obtained summary judgment of non-infringement. Contact: Terry L. Clark, Esq., Bass, Berry & Sims PLC, 1201 Pennsylvania Ave. N.W., Washington, D.C. 20004. (R)

155. *In re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010,* MDL No. 2179 (E.D. La.). Served as an expert for litigants BP Exploration & Production Inc. et al. on an issue relating to identification of an anonymous person through Internet searching. Contact: Mark. J. Nomellini, Esq., Kirkland & Ellis LLP, 300 N. LaSalle, Chicago, IL 60654. (R)

156. *EC Data Systems, Inc., v. J2 Global, Inc. et al.*, CV 12-07544 (C.D. Cal.). Served as an expert for declaratory judgment plaintiff EC Data Systems in a case alleging infringement of U.S. Patents 6,208,638 and 6,350,066, 6,597,688 and 7,020,132, relating to electronic distribution of faxes through email. Case has settled. Contact: Matthew Spohn, Esq. Norton Rose Fulbright LLP., Tabor Center, 1200 17th Street, Suite 1000, Denver, Colorado 80202.

157. *MoneyCat, Ltd. v. PayPal, Inc.*, CA 1:13-cv-01358-RGA (D. Del.), now 3:14-cv-02490-PSG (N.D. Cal.). Served as an expert for defendant PayPal in a case alleging infringement of U.S. Patents 7,590,602, 8,195,578 and 8,051,011, relating to issuance and transfer of electronic currency. On CBM review, the PTAB found all asserted claims of all three patents invalid, affirmed by the Federal Circuit. Case was subsequently dismissed. Contact: Adrian Percer, Esq., Weil, Gotshal & Manges, LLP, 201 Redwood Shores Parkway, Redwood Shores, CA 94065. (D,R)

158. *GSI Commerce Solutions, Inc.* v. *Clear With Computers, Inc.*, Patent Trial and Appeal Board Case CBM2013-00055. Served as an expert for petitioner, an eBay company, in a covered business method review of U.S. Patent 8,266,015, relating to methods of presenting lists of product customization options. Review was instituted but the CBM was terminated by settlement. Contact: Scott McKeown, Esq., Ropes & Gray, L.L.P., 2099 Pennsylvania Avenue, Washington, DC 20006-6807. (D,R)

159. *Fidelity National Information Services, Inc. v. Cashedge, Inc. and Checkfree Corporation*, Patent Trial and Appeal Board Cases CBM2013-00028, 30, 31 and 32. Served as

an expert for petitioner in covered business method reviews of U.S. Patents 7,383,223, 7,792,749, 7,853,524 and 7,996,311, relating to transferring funds in electronic payment networks. Reviews have been instituted. All claims of the four patents were invalidated by the PTAB in December 2014. Appeal was taken to the Federal Circuit but terminated by agreement. Contact: Jeffrey A. Berkowitz, Esq., Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., Two Freedom Square, 11955 Freedom Drive, Reston, VA 20190-5675. (D,R)

160. *Boku, Inc. v. Xilidev, Inc.*, Patent Trial and Appeal Board Cases CBM2014-00140 and CBM2014-00148. Served as an expert for petitioner in two covered business method reviews of U.S. Patent 7,273,168, relating to authorizing payments via handheld devices. Result: claims 1-18 and 20-23 found invalid. Claim 19 cancelled. Contact: Frank Pietrantonio, Esq., Cooley LLP, One Freedom Square, 11951 Freedom Drive, Reston, VA 20190. (R)

161. *Protegrity Corporation v. Phoenix Payment Systems, Inc. d/b/a Electronic Payment Exchange*, Case No. 3:13-CV-1386-VKB (D. Conn.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 6,321,201 and 8,402,281, relating to methods of encrypting databases. Case has settled. Contact: David J. Wolfsohn, Esq., Duane Morris LLP, 20 South 17th Street, Philadelphia, PA 19103. (R)

162. *Ameranth, Inc. v. Genesis Gaming Solutions, Inc. et al.*, Case No. SACV 8:11-0189-AG (C.D. Cal.). Served as an expert for Ameranth in a case alleging infringement of U.S. Patents 7,431,650, 7,878,909 and 8,393,969, relating to systems for managing casino operations, particularly in poker rooms. Case has settled. Contact: John W. Osborne, Esq., Osborne Law LLC, 33 Habitat Lane, Cortlandt Manor, NY 10567. (D,R)

163. *Telebuyer, LLC v. Amazon.com, Inc.*, Case No. 2:13-cv-01677-BJR (W.D. Wash.). Served as an expert for Telebuyer in a case alleging infringement by Amazon.com of U.S. Patents 6,323,894, 7,835,508, 7,835,509, 7,839,984, 8,059,796, 8,098,272, and 8,315,364, relating to systems for interfacing buyers and sellers via communication networks. Summary judgment was entered declaring all asserted claims invalid under 35 U.S. §101. Contact: Brian Berliner, Esq., O'Melveny & Myers LLP, 400 South Hope Street, Los Angeles, CA 90071. (D,R)

164. *GlobeRanger Corporation v. Software AG, et al.*, Civil Action No. 3:11-CV-403-B (N.D. Texas). Served as an expert for GlobeRanger in a case alleging misappropriation of trade secrets and civil conspiracy involving radio-frequency identification (RFID) software and business processes. Result: jury verdict of $15 million in favor of GlobeRanger, upheld on appeal to the Fifth Circuit. Contact: Ophelia Camiña, Esq., Susman Godfrey, L.L.P., 901 Main St., Suite 5100, Dallas, TX 75202-3775. (D,R,T)

165. *In re: ProvideRx of Grapevine, LLC and CERx Pharmacy Partners, LP v. Provider Meds, LP, et al.*, Adv. Proc. No. 13-03015-BJH (Bankr. N.D. Tex). Served as an expert for creditor CERx in a Chapter 7 bankruptcy case involving security interests in software for remote dispensing pharmacies and whether certain licenses constitute encumbrances under Texas law. Case has settled. Contact: Bill Whitehill, Esq., Gardere Wynne Sewell LLP, 1601 Elm St., Dallas, TX 75201. (R)

166. *Square, Inc. v. Protegrity Corporation*, CBM2014-00182, Patent Trial and Appeal Board (2014). Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 8,402,281, relating to methods of encrypting databases. Result: all claims invalid under §101. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati Professional Corporation, 650 Page Mill Road, Palo Alto, CA 94304-1050. (D,R)

167. *VigLink, Inc. v. Linkgine, Inc.*, Patent Trial and Appeal Board (2014). Served as an expert for petitioner in covered business method petitions 2014-00184 and 2014-00185 seeking review of U.S. Patents 7,818,214 and 8,027,883, relating to modifying affiliate links on webpages. Result: all challenged claims found invalid. Affirmed by the Federal Circuit at 2016-2087, 2016-2088. Contact: Robert C. Hilton, Esq., McGuireWoods LLP, 2000 McKinney Ave., Suite 1400, Dallas, TX 75201. (R)

168. *Juhline et al. v. Ben Bridge Jewelers Inc. et al.*, Case 11-cv-2096-GPC-NLS (S.D. Cal.). Served as an expert for defendant Ben Bridge in a class action alleging violation of California Civil Code §1747.8, relating to the collection of personal identification information in connection with credit card transactions. Case has settled. Contact: Rosemarie T. Ring. Esq., Munger, Tolles & Olson LLP, 560 Mission St., 27th Fl., San Francisco, CA 94105.

169. *Catch Curve, Inc. v. Integrated Global Concepts, Inc. v. j2 Global Communications, Inc. et al.*, Case 1:06-CV-02199 (N.D. Ga.). Served as an expert for defendant and counterclaim plaintiff Integrated Global Concepts in a case alleging infringement of U.S. Patents 4,994,926, 5,291,302, 5,459,584, 6,643,034, 6,785,021, 7,365,884 and 7,525,691, relating to store-and-forward fax systems. Infringement claims were dropped. The issue at bar is whether j2 Global had an objective basis to believe that Integrated Global was infringing. Case has settled. Contact: James Heiser, Esq., Chapman and Cutler, LLP, 111 West Monroe St., Chicago, IL 60603. (D,R)

170. *Phoenix Payment Systems, Inc. v. Protegrity Corporation*, CBM2014-00121, Patent Trial and Appeal Board (2014). Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 8,402,281, relating to methods of encrypting databases. Underlying litigation settled before CBM could be instituted. Contact: Contact: David J. Wolfsohn, Esq., Duane Morris LLP, 20 South 17th Street, Philadelphia, PA 19103. (R)

171. *Informatica Corporation v. Protegrity Corporation*, CBM2015-00010, CBM2015-00021, Patent Trial and Appeal Board (2014). Served as an expert for petitioner in two covered business method petitions seeking review of U.S. Patents 8,402,281 and 6,321,201, relating to methods of encrypting databases. Result: all claims found invalid under 35 U.S.C. §101. The Board's opinions in the '201 case and the '281 case comment favorably on Dr. Shamos's testimony. Contact: Mark S. Kaufman, Esq., Reed Smith LLP, 1301 K Street N.W., Washington, DC 20005. (D,R)

172. *Qualtrics, LLC v. OpinionLab, Inc.*, IPR2014-00314, IPR2014-00356, IPR2014-00366, IPR2014-00406, IPR2014-00420, and IPR2014-00421, Patent Trial and Appeal Board (2014). Served as an expert for patent owner OpinionLab, Inc. in *inter partes* reviews of U.S. Patents 6,421,724, 6,606,581, 8,041,805, 7,085,820, 7,370,285 and 8,024,668, relating to

methods of soliciting page-specific feedback regarding web pages. All challenged claims have been found invalid except as to the '805 patent. '724 was not instituted. Contact: Chris Kennerly, Esq., Paul Hastings LLP, 1117 S. California Ave., Palo Alto, CA 94304. (D,R)

173. *Callwave Communications, LLC v. AT&T Mobility, LLC et al.*, Case 1:12-cv-01788-RGA (D. Del.). Served as an expert for defendant Research In Motion, Corp. in a case alleging infringement of U.S. Patent 7,907,933, relating to methods of billing for purchases by placing a call to a pay-per-call service. Plaintiff stipulated to non-infringement for appeal purposes, but the Federal Circuit upheld on January 10, 2017. Contact: John V. Gorman, Esq., Morgan, Lewis & Bockius LLP, 1701 Market Street, Philadelphia, PA 19103.

174. *SoftVault Systems, Inc. v. Dassault Systèmes Solidworks Corporation*, Case 5:14-cv-03221-LHK (N.D. Cal.). Served as an expert for defendant Solidworks. in a case alleging infringement of U.S. Patents 6,249,868 and 6,594,765 relating to embedded agents for protecting computer systems against theft. Case has settled. Contact: Cheryl T. Burgess, Esq., Knobbe, Martens, Olson & Bear, L.L.P., 2040 Main Street, 14th Floor Irvine, CA 92614.

175. *PPS Data, LLC v. TransCentra, Inc.*, Case 13-359-LPS (D. Del.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 7,181,430, 7,440,924, 7,624,071 and 8,126,809, relating to methods for processing check images in electronic payment systems. Case has settled. Contact: Anthony H. Son, Esq., Maddox Edwards, PLLC, 1900 K Street NW, Suite 725, Washington, DC 20006. (Original firm: Wiley Rein).

176. *Clear With Computers, Inc. v. Spanx, Inc.*, C.A. 6:12-cv-950-LED (E.D. Texas). Served as an expert for defendant, an eBay company, in a case alleging infringement of U.S. Patent 8,266,015, relating to methods of presenting lists of product customization options. Judgment on the pleadings was granted, invalidating the asserted claims under 35 U.S.C. §101. Case was appealed to the Federal Circuit, but the appeal with withdrawn. Case has settled. Contact: Scott McKeown, Esq., Oblon, Spivak, McClelland, Maier & Neustadt, L.L.P., 1940 Duke Street Underpass, Alexandria, VA 22314.

177. *Integrated Global Concepts, Inc. v. Advanced Messaging Technologies, Inc.*, IPR2014-01027 and IPR2014-01028 Patent Trial and Appeal Board (2014). Served as an expert for petitioner seeking *inter partes* review of U.S. Patents 6,020,980, relating to delivering faxes through electronic mail. The PTAB declined to institute review. Contact: Robert J. Schneider, Esq., Taft Stettinius & Hollister LLP, 111 East Wacker, Suite 2800, Chicago, IL 60601. (R)

178. *athenahealth, Inc. v. AdvancedMD Software, Inc.*, Civil Action 1:11-cv-11260-GAO (D. Mass.). Served as an expert for plaintiff athenahealth, Inc. in a case alleging infringement of U.S. Patents 7,617,116 and 7,720,701, relating to detecting errors in medical insurance claim submissions and automated configuration of medical practice management systems. Case has settled. Contact: Robert M. Abrahamsen, Esq., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210.

179. *CEATS, Inc. v. Orbitz Worldwide, Inc.*, Civil Action 2:13-cv-01385-MMD-PAL (D. Nev.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents

7,548,867, 7,640,178, 7,660,727, 8,219,448, 8,229,774 and 8,244,561, relating to systems and methods for managing airline seat reservations. Case has settled. Contact: Jared Bunker, Esq., Knobbe, Martens, Olson & Bear, L.L.P., 2040 Main Street, 14th Floor Irvine, CA 92614.

180. *Audatex North America, Inc. v. Mitchell International, Inc.*, Civil Action 3:13-cv-01523-BEN (BLM) (S.D. Cal.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 7,912,740, 8,200,513 and 8,468,038, relating to systems and methods for determining the valuation of a damaged vehicle for insurance purposes. Claims found invalid after CBM review, affirmed by the Federal Circuit. Contact: David McPhie, Esq., Irell & Manella LLP, 840 Newport Center Dr., Newport Beach, CA 29660. (R)

181. *Skimlinks, Inc. et al. v. Linkgine, Inc.*, Patent Trial and Appeal Board (2015). Served as an expert for petitioners in covered business method petitions 2015-00086 and 2015-00087 seeking review of U.S. Patents 7,818,214 and 8,027,883, relating to modifying affiliate links on webpages. Result: all claims found invalid, affirmed by the Federal Circuit. Contact: Richard F. Martinelli. Esq., Orrick, Herrington & Sutcliffe LLP, 51 West 52nd St., New York, NY 10019. (R)

182. *Advanced Auctions, LLC. v. eBay, Inc.*, Case 12-cv-1612-BEN (JLB) (S.D. Cal.). Served as an expert for defendant eBay in case alleging infringement of U.S. Patent 8,266,000, relating to methods of conducting Internet auctions. Defendant obtained judgment of invalidity on the pleadings under 35 U.S.C. §101. Contact: Adrian Percer, Esq., Weil, Gotshal & Manges, LLP, 201 Redwood Shores Parkway, Redwood Shores, CA 94065.

183. *MaxMind, Inc. et al. v. Fraud Control Systems.com Corporation*, CBM2015-00094, Patent Trial and Appeal Board (2014). Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 8,630,942, relating to methods of determining whether a payment transaction may be fraudulent based on IP addresses. Review was instituted on §101 grounds and Patent Owner requested adverse judgment. Contact: Anthony H. Son, Esq., Maddox Edwards, PLLC, 1900 K Street NW, Suite 725, Washington, DC 20006. (R)

184. *Square, Inc. v. Unwired Planet, LLC*, CBM2014-00156, Patent Trial and Appeal Board (2014). Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 7,711,100, relating to conducting point-of-sale transactions based on the location of a wireless device. Challenged claims found invalid. Contact: Sasha G. Rao, Esq., Maynard Cooper and Gale PC, 275 Battery St., San Francisco, CA 94111 (D,R)

185. *Unified Patents, Inc. v. Finnavations LLC*, IPR2015-01209, Patent Trial and Appeal Board (2015). Served as an expert for petitioner in an inter partes review of U.S. Patent 8,132,720, relating to verifying online transaction data through a graphical user interface. Status: not instituted. Contact: Paul C. Haughey, Esq., Kilpatrick Townsend & Stockton LLP, Eighth Floor, Two Embarcadero Center San Francisco, CA 94111 (R)

186. *Hoskin Hogan et al. v. BP West Coast Products LLC et al.*, Case BC 460880 (Super. Ct. Los Angeles Cty. CA, 2011). Served as an expert for defendant Retalix Ltd., alleging negligence in the development and testing of software for processing point-of-sale transactions. Summary

judgment granted in favor of Retalix. Contact: Richard H. Zelichov, Esq., Katten Muchin Rosenman LLP, 2029 Century Park East, Suite 2600, Los Angeles, CA 90067-3012. (D,R)

187. *In re U.S. Patent Application 12/912,726* (USPTO). Served as an expert for applicant AlmondNet, Inc. in an application for a patent relating to distributing digital advertising based on a recipient profile. PTAB affirmed the Examiner's § 101 rejection. Contact: Louis J. Hoffman, Esq., Hoffman Patent Firm. (R)

188. *Wickfire, LLC v. TriMax Media, Inc. et al.*, C.A. 1:14-CV-34 (W.D. Tex). Served as an expert for defendants in a case alleging click fraud in Internet advertising. Jury verdict for Plaintiff, reversed on appeal to the Fifth Circuit. Contact: Barry M. Golden, Esq., Miller, Egan, Molter & Nelson LLP, 2911 Turtle Creek Blvd., Suite 1100 Dallas, TX 75219. (D,R,T)

189. *Square, Inc. v. Unwired Planet, LLC*, CBM2015-00148, Patent Trial and Appeal Board. Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 7,711,100, relating to conducting point-of-sale transactions based on the location of a wireless device. Not instituted because claims were found invalid under § 101 in CBM2014-00156. Contact: Sasha G. Rao, Esq., Maynard Cooper and Gale PC, 275 Battery St., San Francisco, CA 94111. (D,R)

190. *Datatrak International Inc. v. Medidata Solutions, Inc.*, C.A. 1:11-cv-00458-PAG (N.D. Ohio). Served as an expert for defendant in a case alleging infringement of U.S. Patent 7,464,087, relating to federated database queries. Defendant obtained summary judgment of invalidity under 35 U.S.C. §101. Contact: Duane-David Hough, Esq., Mayer Brown LLP, 1675 Broadway, New York, NY 10019. (R)

191. *SNMP Research, Inc. et al. v. Avaya, Inc.*, C.A. 1:12-cv-00191-RGA-MPT (D. Del.). Served as an expert for Avaya in an action alleging breach of contract, trade secret misappropriation and copyright infringement involving software implementing the Simple Network Management Protocol (SNMP). Case has settled. Contact: Joshua Krumholz, Esq., Holland & Knight, LLP, 10 St. James Avenue, 11th Floor, Boston, MA 02116. (D,R)

192. *Certain Automated Teller Machines and Point of Sale Devices and Associated Software Therefor*, USITC Inv. No. 337-TA-958. Served as an expert for Respondents NRT Technology Corp. et al. in an International Trade Commission proceeding brought by Complainant Global Cash Access Inc. involving alleged infringement of U.S. Patent 6,081,792, relating to structuring ATM and POS transactions with respect to withdrawal limits. Result: all claims found invalid as indefinite. In affirming this determination, the Commission wrote: "should the extrinsic evidence be considered, the Commission finds NRT's expert testimony credible, see Rebuttal Expert Report of Michael Shamos Regarding Claim Construction ¶¶ 52-58, and that Everi's expert's testimony is not credible." Contact: Colby B. Springer, Esq., Polsinelli LLP (formerly at Lewis Roca Rothgerber LLP), Three Embarcadero Center, Suite 1350, San Francisco, CA 94111. (D,R)

193. *Better Mouse Company, L.L.C. v. SteelSeries ApS, Inc. et al.*, C.A. 2:14-cv-198-JRG (E.D. Texas). Served as an expert for defendant in a case alleging infringement of U.S. Patent

7,532,200, relating to computer mouse whose resolution can be set without external software. Dr. Shamos testified at trial on non-infringement. The jury found for defendant on non-infringement. Contact: Joshua M. Masur, Esq., Zuber Lawler & Del Duca LLP, 2000 Broadway, Suite 154, Redwood City, California 94063. (Original firm: Turner Boyd LLP) (R,T)

194. *Vesta Corporation v. Amdocs Management Limited et al.*, No. 3:14-cv-01142-HZ (D. Ore.). Served as an expert for defendants in a case alleging misappropriation of trade secrets relating to billing in the prepaid mobile phone payment processing market. Case has settled. Contact: Yonaton M. Rosenzweig, Esq., Katten Muchin Rosenman LLP, 2029 Century Park East, Suite 2600, Los Angeles, CA 90067-3012. (D,R)

195. *Benefit Funding Systems, LLC et al. v. U.S. Bancorp*, CA 1:12-cv-00803-LPS (D.Del.). Served as an expert for defendant U.S. Bancorp in an action alleging infringement of U.S Patent 6,625,582, relating to a method of establishing a financial account based on the present value of future retirement payments. All asserted claims were found invalid under 35 U.S.C. §101, a decision affirmed by the Federal Circuit. Contact: Contact: Anthony H. Son, Esq., Maddox Edwards, PLLC, 1900 K Street NW, Suite 725, Washington, DC 20006. (Original firm: Wiley Rein).

196. *Telesign Corporation v. Twilio, Inc.*, C.A. 3:18-cv-03279-VC (N.D. Cal.). Served as an expert for defendant Twilio in an action alleging infringement of U.S. Patent 7,945,034, relating to verification of telephone users based on characteristics of the telephone number, such as carrier and geographic location. Defendant successfully resisted issuance of a preliminary injunction. Case is stayed pending PTAB review. After PTAB review, Twilio's motion for judgment on the pleadings was granted. Contact: Thomas J. Friel, Jr., Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (R)

197. *Cronos Technologies, LLC v. Expedia, Inc.*, C.A. 13-1538-LPS (D. Del.), *Cronos Technologies, LLC v. Priceline.com, Inc.*, C.A. 13-1541-LPS (D. Del.) and *Cronos Technologies, LLC v. Travelocity.com L.P.*, C.A. 13-1544-LPS (D. Del.). Served as an expert for defendants in three cases, consolidated for some purposes, in actions alleging infringement of U.S. Patent 5,664,110, relating to a remote ordering system enabling a user to build lists of products to be ordered. The Court found non-infringement on summary judgment, affirmed unanimously by the Federal Circuit. Contact: Matthew C. Acosta, Esq., Jackson Walker LLP, KPMG Plaza at Hall Arts, 2323 Ross Avenue, Suite 600, Dallas, TX 75201. (D,R)

198. *Ex Parte Reexamination of U.S. Patent 7,333,430*, Control No. 90/013,532. Served as an expert for patent owner Fortinet, Inc. in a reexamination of U.S. Patent 7,333,430, drawn to distributing network packets for intermediate security processing based on the ultimate destination of the packet. Result: all challenged claims and newly presented claims patentable. Contact: Michael A. DeSanctis, Hamilton DeSanctis & Cha LLP, Financial Plaza at Union Square, 225 Union Boulevard, Ste. 150, Lakewood, CO 80228. (R)

199. *ServiceNow, Inc. v. Hewlett-Packard Company*, Case IPR2015-00717 (PTAB). Served as an expert for patent owner Hewlett-Packard Company in an inter partes review of U.S. Patent 7,027,411, drawn to efficient determination of changes in network topology. Status: settled.

Contact: Monica Grewal, Esq., Wilmer Cutler Pickering Hall and Dorr LLP, 60 State Street, Boston, MA 02109. (D,R)

200. *Intellectual Ventures I LLC v. Nextel Operations, Inc. and Sprint Spectrum L.P.*, C.A. No. 13-1634 (D.Del) and related cases 13-1635; *Intellectual Ventures I LLC v. T-Mobile USA, Inc. et al.*, C.A. No. 13-1632; 13-1633; *Intellectual Ventures I LLC v. United States Cellular Corporation*, C.A. No. 13-1636 and related case 13-1637, all D. Del. Served as an expert for defendants Sprint, T-Mobile and U.S. Cellular in related cases alleging infringement of U.S. Patent 6,115,737, drawn to use of an Internet gateway for processing customer service requests to a web server. The Court invalidated the '737 patent on §101 grounds. Contact: Jason W. Cook, Esq., McGuireWoods LLP, 2000 McKinney Ave., Suite 1400, Dallas, TX 75201. (D,R)

201. *Ex Parte Reexamination of U.S. Patent 7,968,744*, Control No. 90/013,533. Served as an expert for patent owner Fortinet, Inc. in a reexamination of U.S. Patent 7,698,744, drawn to systems and methods for allowing execution of authorized computer code and for protecting computer systems and networks from unauthorized code execution. Result: challenged claim and 14 new claims determined patentable. Contact: Michael A. DeSanctis, Hamilton DeSanctis & Cha LLP, Financial Plaza at Union Square, 225 Union Boulevard, Ste. 150, Lakewood, CO 80228. (R)

202. *Ex Parte Reexamination of U.S. Patent 7,376,125*, Control No. 90/013,531. Served as an expert for patent owner Fortinet, Inc. in a reexamination of U.S. Patent 7,376,125, drawn to a virtual routing engine for software-based packet routing. Result: newly presented claims patentable. Contact: Michael A. DeSanctis, Hamilton DeSanctis & Cha LLP, Financial Plaza at Union Square, 225 Union Boulevard, Ste. 150, Lakewood, CO 80228. (R)

203. *Twilio, Inc. v. Telesign Corporation*, IPR2016-00360. Served as an expert for requester Twilio in an *inter partes* review of U.S. Patent 7,945,034, relating to verification of telephone users based on characteristics of the telephone number, such as carrier and geographic location. Challenged claims confirmed. Contact: Thomas J. Friel, Jr., Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (D,R)

204. *Twilio, Inc. v. Telesign Corporation*, IPR2016-00450, Patent Trial and Appeal Board (2016). Served as an expert for petitioner in an *inter partes* review of U.S. Patent 8,462,920, relating to verification of telephone users based on characteristics of the telephone number, such as carrier and geographic location. Trial was not instituted. Contact: Contact: Carrie J. Richie, Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (R)

205. *Smart Systems Innovations, LLC v. Chicago Transit Authority, et al.*, C.A. 14-cv-08053 (N.D. Ill.). Served as an expert for defendants in an action alleging infringement of U.S. Patent 5,828,044, relating to a radio-frequency ID (RFID) credit card system. Defendant successfully resisted issuance of a preliminary injunction. All claims invalidated as non-statutory under 35 U.S.C. §101. Affirmed by the Federal Circuit in October 2017. Contact: Jeffrey M. Connor., Esq., formerly at Kilpatrick Townsend & Stockton LLP, now IP counsel at Honeywell. (D,R)

206. *Unwired Planet LLC v. Google, LLC*, C.A. 3:12-cv-00504-MMD-VPC (D. Nevada). Served as an expert for Google in an action alleging infringement of U.S. Patents 6,292,657, 6,654,786, 6,662,016, 6,684,087, 6,895,240, 6,944,760, 7,024,205, 7,035,647, 7,203,752 and 7,463,151, relating to provision of wireless services. All asserted claims of the '151, '205 and '751 patents have been found invalid by the Patent Trial and Appeal Board. After appeal to the Federal Circuit, the case continued with respect to certain claims of the '752 Patent but these were dismissed by stipulation. Contact: Peter E. Gratzinger, Esq., Munger, Tolles & Olson LLP, 355 South Grand Avenue, Los Angeles, CA 90071.

207. *Xilidev, Inc. v. Boku, Inc. et al.*, C.A. 3:13-cv-02793 (S.D. Cal.). Served as an expert for defendants in an action alleging infringement of U.S. Patent 7,273,168, relating to point-of-sale billing on handheld devices. Claims 1-18 and 20-23 of the '168 patent have been found invalid by the Patent Trial and Appeal Board. Plaintiff agreed to a voluntary dismissal with prejudice. Contact: Frank Pietrantonio, Esq., Cooley LLP, One Freedom Square, 11951 Freedom Drive, Reston, VA 20190.

208. *Intellectual Ventures II LLC v. Commerce Bancshares, Inc. et al.*, C.A. 2:13-CV-04160 (W.D. Mo.). Served as an expert for defendants in an action alleging infringement of U.S. Patents 5,745,574, relating to security in electronic transactions, 6,314,409 and 6,826,694, relating to controlling access to digital property, 6,715,084, relating to intrusion detection, and 7,634,666, relating to a cryptographic engine. All asserted claims have been declared invalid by the Patent Trial and Appeal Board. Decision affirmed by the Federal Circuit in December 2016. Contact: Mark Vander Tuig, Esq., Senniger Powers LLP, 100 North Broadway, 17th Floor, St. Louis, MO 63102.

209. *Hy-Vee, Inc. v. Inmar Digital Promotions Network, Inc.*, C.A. 4:15-cv-00275 (S.D. Iowa). Served as an expert for defendant in an action seeking indemnity for infringement of U.S. Patents 8,219,445, 8,370,199 and 8,538,805, relating to point-of-sale processing of promotions, such as coupons. Hy-Vee had been sued for infringing these patents in *Advanced Marketing Systems, LLC v. Hy-Vee, Inc.*, C.A. 3:15-cv-00103 (W.D. Wisc.). Both cases have settled. Contact: Richard J. Keshian, Esq., Kilpatrick Townsend & Stockton LLP, 1001 West Fourth Street Winston-Salem, NC, 27101. (R)

210. *Motivation Innovations, LLC v. PetSmart, Inc.*, C.A. 1:13-cv-00957 (D.Del.). Served as an expert for defendant in an action alleging infringement of U.S. Patent 5,612,527, relating to a system for redeeming discount offers at point of sale. On motion for judgment on the pleadings, all asserted claims were found invalid under 35 U.S.C. §101. Contact: Kevin A. Zeck, Esq., Perkins Coie, LLP, 1201 Third Avenue, Suite 4900, Seattle, WA 98101-3099.

211. *PPS Data, LLC v. VSoft Corporation et al.*, Case 1:15-cv-00084 (N.D. Ga.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 7,181,430, 7,216,106, 7,440,924, 7,624,071 and 8,660,956, relating to methods for processing check images in electronic payment systems. Case has settled. Contact: Anthony H. Son, Esq., Maddox Edwards, PLLC, 1900 K Street NW, Suite 725, Washington, DC 20006 (original firm Andrews Kurth).

212. *Sally Beauty Holdings et al. v. Intellectual Ventures I LLC*, CBM2016-00029, Patent Trial and Appeal Board. Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 5,969,324, relating to accounting methods utilizing a non-predictable bar code. Trial was instituted, the PTAB writing in its decision: "We credit the testimony of Dr. Michael Shamos." Case has settled. Contact: Derek Swanson, Esq., McGuireWoods LLP, Gateway Plaza, 800 East Canal Street, Richmond, VA 23219. (R)

213. *Square, Inc. v. Protegrity Corporation*, CBM2015-00014, Patent Trial and Appeal Board (2016). Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 6,321,201, relating to methods of encrypting databases. Result: all challenged claims found invalid under 35 U.S. §§101 and 103. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati Professional Corporation, 650 Page Mill Road, Palo Alto, CA 94304-1050. (R)

214. *T-Mobile US, Inc. v. Intellectual Ventures II LLC*, CBM2016-00083, Patent Trial and Appeal Board. Served as an expert for petitioner in a covered business method petition seeking review of U.S. Patent 6,115,737, relating to use of an Internet gateway for processing customer service requests to a web server. The PTAB determined that the patent did not claim a covered business method. Contact: Alison R. Watkins, Esq., Gibson, Dunn & Crutcher LLP, 1881 Page Mill Road, Palo Alto, CA 94304-1211. (R)

215. *Twin Peaks Software, Inc. v. IBM Corporation*, Case 3:14-cv-03933-JST (N.D. Cal.). Served as an expert witness for defendant IBM in an action alleging infringement of U.S. Patent 7,418,439, relating to a system for storing and sharing networked files. All asserted claims found invalid during claim construction. Contact: Andrew Bramhall, Esq., Quinn Emanuel Urquhart & Sullivan, LLP, 555 Twin Dolphin Drive, 5th Floor, Redwood Shores, CA 94065-2139.

216. *Live Face on Web, LLC v. The Control Group Media Company, Inc. et al.*, Case 2:15-cv-01306 (E.D. Pa.). Served as an expert witness for defendants in an action alleging breach of contract and infringement of copyrights relating to web media players and video productions in which recorded actors promote products for websites. Case has settled. Contact: Damon W.D. Wright, Esq., Venable LLP, 575 Seventh St. N.W., Washington, DC 20004.

217. *Nomadix, Inc. v. Hospitality Core Services, LLC*, Case 2:14-cv-08256-DDP (C.D. Cal.) Served as an expert witness for defendant in a case alleging infringement of U.S. Patents 6,636,894 and 6,868,399, relating to network gateways, U.S. Patent 7,698,432, relating to bandwidth management, U.S. Patent 7,953,857, relating to dynamic data transfer over networks, U.S. Patent 8,266,266, relating to dynamic network authorization, and U.S. Patents 8,156,246, 8,266,269, 8,364,806, 8,725,888 and 8,788,690, relating to providing network content. Case has settled. Contact: Michael J. Mehrman, Merhman Law Office, P.C., 150 Spalding Creek Court, Sandy Springs, GA 30350.

218. *Certain Digital Video Receivers and Hardware and Software Components Thereof*, USITC Inv. No. 337-TA-1001. Served as an expert for Complainants Rovi Corporation et al. against Comcast Corporation et al. in an International Trade Commission proceeding involving alleged infringement of U.S. Patents 8,006,263 , 8,046,801 and 8,578,413, relating to remote

and local electronic TV program guides. On Final Determination, a violation was found with respect to the '263 and '413 patents. Affirmed by the Federal Circuit on March 20, 2020. Contact: Richard A. Kamprath, Esq., McKool Smith, 300 Crescent Court, Suite 1500, Dallas, TX 75201. (D,R,T)

219. *ZKey Investments, LLC v. Facebook, Inc.*, Case 2:16-cv-00782-RSWL-KS (C.D. Cal.). Served as an expert for defendant in a case alleging infringement of U.S. Patent 6,820,204, relating to providing granular control over access to data. Result: all claims found invalid under §101. Affirmed by the Federal Circuit on Jan. 10, 2018. Contact: Andrew C. Mace, Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (R)

220. *In re: The Matter of the 2016 Presidential Election*, 659 MD 2016 (Pa. Cmwlth. Ct., 2016). Served as an expert for intervenors opposing an action brought seeking a recount of votes in Pennsylvania on the grounds that the state's voting systems are unsecure and vulnerable to hacking by foreign actors. Petitioners discontinued the suit before hearing, refusing to post the required bond. Contact: Lawrence J. Tabas, Esq., Obermayer Rebmann Maxwell & Hippel LLP, One Penn Center, 19th Floor, 1617 John F. Kennedy Blvd., Philadelphia, PA 19103.

221. *Stein v. Cortés*, Case 2:16-cv-06287-PD (E.D. Pa.). Served as an expert for defendant Secretary of the Commonwealth of Pennsylvania in an action for a mandatory injunction to compel a recount and forensic examination of voting systems. Result: injunction denied. The Court's memorandum comments favorably on Dr. Shamos's qualification and testimony. Most claims have been dismissed on summary judgment. Case has settled. Contact: Timothy Gates, Esq., Chief Counsel, PA Department of State, 3306 North Office Bldg., Harrisburg, PA 17120. (R,T)

222. *Free Stream Media Corp. (d.b.a. Samba) v. Alphonso Inc.*, Case No. 3:17-cv-02107 (N.D. Cal., transferred from E.D. Tex.). Served as an expert for defendant Alphonso in an action alleging infringement of U.S. Patents 9,026,668 and 9,386,356, relating to a system for targeting data, such as advertising, to a device, such as a tablet, based on content that is identified as playing on a different device, such as a television. Alphonso won summary judgment of non-infringement. Contact: Neel Chatterjee, Esq., Goodwin Procter LLP, 601 Marshall Street, Redwood City, CA 94063. (D,R)

223. *Copart, Inc. v. Sparta Consulting, Inc.*, Case 2:14-cv-00046-KJM-CKD (E.D. Cal.). Served as an expert for defendant Sparta in an action alleging misappropriation of trade secrets relating to imaging batches of items to be offered at auction. Misappropriation counts were dropped during trial. Contact: Frederick Brown, Esq., Gibson, Dunn & Crutcher LLP, 555 Mission Street, Suite 3000, San Francisco, CA 94105. (D,R)

224. *Apple Inc. v. Masa LLC.*, IPR2016-00748, Patent Trial and Appeal Board (2016). Served as an expert for patent owner in an *inter partes* review of U.S. Patent 8,519,834, relating to a wearable device to alert a user to an incoming cellphone call. All challenged claims found invalid. Affirmed by the Federal Circuit. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (R)

225. *Tele-Publishing, LLC v. Facebook, Inc. et al.*, Case 1:09-cv-11686-DPW (D. Mass.). Served as an expert for defendants in a case alleging infringement of U.S. Patent 6,253,216, relating to controlling access to information on personal web pages. Result: all claims found invalid under §101; judgment for defendants. Case settled during appeal to the Federal Circuit. Contact: Reuben Chen, Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (R)

226. *Groupon, Inc. v. International Business Machines Corporation*, Case 1:16-cv-5064 (N.D. Ill.). Served as an expert for Groupon in a case alleging infringement of U.S. Patent 7,856,360, relating to gathering information from attendees at a venue. Case has settled. Contact: Saina Shamilov, Esq., Fenwick & West LLP, 801 California Street, Mountain View, CA 94041. (R)

227. *Stingray Digital Group Inc. v. Music Choice*, Patent Trial and Appeal Board. Served as an expert for petitioner in six *inter partes* reviews of U.S. Patents 7,320,025 (IPR2017-00888) and 9,351,045 (IPR2017-01191), relating to providing supplementing a broadcast media service with an on-demand, personalized media service and U.S. Patents 8,769,602 (IPR2017-01192), 9,357,245 (IPR2017-1193, IPR 2018-0114), relating to providing a visual complement to an audio program, and 9,414,121 (IPR 2017-1450), relating to systems and methods for providing on-demand entertainment. Trial has been instituted in '025, '045, '121 and '602. Patent owner requested adverse judgment in IPR2017-1193. Two claims survived in IPR2018-00114. Contact: Heath Briggs, Esq., Greenberg Traurig, LLP, 1200 17th St., Suite 2400, Denver, CO 80202. (D,R)

228. *Music Choice v. Stingray Digital Group Inc. et al.*, C.A. No. 2:16-CV-0586-JRG-RSP (E.D. Texas). Served as an expert for defendants in a case alleging infringement U.S. Patents 7,320,025 and 9,351,045, relating to providing supplementing a broadcast media service with an on-demand, personalized media service, U.S. Patents 8,769,602 and 9,357,245, relating to providing a visual complement to an audio program, and U.S. Patent 9,414,121, relating to systems and methods for providing on-demand entertainment. Case has settled. Contact: Joshua Raskin, Esq., Greenberg Traurig, LLP, MetLife Bldg., 200 Park Avenue, New York, NY 10166. (R)

229. *LivePerson, Inc. v. 24[7] Customer, Inc.*, IPR2017-00609, Patent Trial and Appeal Board. Served as an expert for patent owner in an *inter partes* review of U.S. Patent 6,970,553, relating to converting a voice call into a chat session. Four of six challenged claims were not found unpatentable. Contact: Bill Trac, Esq., O'Melveny & Myers LLP, Two Embarcadero Center, 28th Floor, San Francisco, CA 94111. (R)

230. *Blackberry Limited v. Blu Products, Inc.*, Case 1:16-cv-23535-FAM (S.D. Fla.). Served as an expert for defendants in a case alleging infringement of 15 patents, including U.S. Patent 6,271,605, relating to a battery disconnect system, U.S. Patent 8,169,449, relating to a multilayer graphics controller, and U.S. Patent 8,411,845, relating to the display of call logs on mobile phones. Case has settled. Contact: Victor Castellucci, Esq., Cozen O'Connor, 2 South Biscayne Blvd., 30th Floor, Miami, FL 33131. (R)

231. *Twitter, Inc. v. YouToo Technologies, LLC.*, Patent Trial and Appeal Board. Served as an expert for patent owner in two *inter partes* reviews of U.S. Patent 9,083,997 (IPR2017-00829,

IRP2017-00830), relating to publishing content on social media sites. All challenged claims found unpatentable. Contact: Samuel E. Joyner, Esq., Carrington, Coleman, Sloman & Blumenthal, LLP, 901 Main Street, Suite 5500, Dallas, TX 75202. (R)

232. *IPDEV Co. v. Ameranth, Inc.*, Case No. 3:14-cv-01303-GPC-JLB (S.D. Cal.). Served as an expert for defendant in an action to determine priority of invention among interfering patents involving U.S. Patents 6,384,850 and 6,871,325, assigned to Ameranth and relating to synchronous updating of restaurant menus on wireless devices, and U.S. Patents 5,991,739 and 8,738,449, relating to Internet ordering methods. Consolidated with Case 233, below. On summary judgment, the Court awarded priority to Ameranth. Contact: John W. Osborne, Esq., Osborne Law LLC, 33 Habitat Lane, Cortlandt Manor, NY 10567. (D,R)

233. *In re: Ameranth Patent Litigation*, Case No. 3:11-cv-01810-DMS-WSG (S.D. Cal.). Served as an expert for Ameranth in an action against numerous defendants alleging infringement of U.S. Patents 8,146,077, relating to synchronous updating of restaurant menus on wireless devices. All asserted claims were found invalid under 35 U.S.C. § 101, affirmed by the Federal Circuit. Contact: John W. Osborne, Esq., Osborne Law LLC, 33 Habitat Lane, Cortlandt Manor, NY 10567. (D,R)

234. *Google Inc. v. Spring Ventures, Ltd.*, IPR2017-01652 and 01653, Patent Trial and Appeal Board. Served as an expert for petitioner in *inter partes* reviews of U.S. Patent 8,661,094, relating to WWW addressing. Trial instituted in 2017-01653, denied in 2017-01652. Result: all claims of the '094 patent were determined to be unpatentable. Affirmed on appeal to the Federal Circuit. At oral argument, Dr. Shamos's qualifications were challenged unsuccessfully. Contact: Scott McKeown, Esq., Ropes & Gray, L.L.P., 2099 Pennsylvania Avenue, Washington, DC 20006-6807. (D,R)

235. *Rovi Guides, Inc. et al. v. Comcast Corporation et al.*, Case No. 1:16-cv-09278-JPO (S.D.N.Y.). Served as an expert for plaintiffs in an action alleging infringement of U.S. Patent 8,713,595, relating to electronic TV program guides and 9,172,987, relating to the use of markup language to alter the functionality of set-top boxes. Case has settled. Contact: Richard A. Kamprath, Esq., McKool Smith, 300 Crescent Court, Suite 1500, Dallas, TX 75201. (D,R)

236. *StrikeForce Technologies, Inc. v. Entrust, Inc. et al.*, Case No. 1:17-cv-00309-LMB-TCB (E.D. Va.). Served as an expert for plaintiff in an action alleging infringement of U.S. Patents 8,484,698, and 8,713,701, relating to out-of-band authentication using mobile devices. Case has settled. Contact: Josef Schenker, Esq., Ropes & Gray LLP, 1211 Avenue of the Americas, New York, NY 10036. (R)

237. *Level One Technologies, Inc. v. Penske Truck Leasing Co, Inc. and Penske Logistics, LLC*, Case No. 4:14-cv-1305-RWS (E.D. Mo.). Served as an expert for defendant in an action alleging trade secret misappropriation and contractual breach of confidentiality relating to a computer system for invoicing and rendering electronic payments in the trucking industry. Case has settled. Contact: Douglas Y. Christian, Esq., Ballard Spahr LLP, 1735 Market Street, 51st Floor, Philadelphia, PA 19103. (D,R)

238. *Uniloc USA Inc. et al. v. Netsuite Inc.*, Case No. 2:16-cv-00862-RWS (E.D. Texas) and *Uniloc USA Inc. et al. v. Nutanix Inc.*, Case No. 2:16-cv-01193-RWS (E.D. Texas). Served as an expert for plaintiff on claim construction issues in an action alleging infringement of U.S. Patent 6,324,578, relating to management of configurable application programs on a network. Later, the asserted claims were found invalid under 35 U.S.C. § 101. Contact: James J. Foster, Esq., Prince Lobel Tye LLP, One International Place, Suite 3700, Boston, MA 02110. (R)

239. *Muransky v. The Cheesecake Factory, Inc. et al.*, Case 2:17-cv-07569-CJC-RAO (C.D. Cal). Served as an expert for defendants in a case involving alleged violations of the Fair Credit Reporting Act, 15 U.S.C. § 1681 ("FCRA") arising from display of more than five digits of a credit card number on customer receipts. Case has settled. Contact: John L. McManus, Esq., Greenberg Traurig, P.A., 401 E. Los Olas Blvd., Suite 2000, Fort Lauderdale, FL 33301. (R)

240. *Twilio, Inc. v. Telesign Corporation*, IPR2016-00451, Patent Trial and Appeal Board (2016). Served as an expert for petitioner in an *inter partes* review of U.S. Patent 8,687,038, relating to verifying an online registration via an out-of-band telephone connection. Trial was not instituted. Contact: Contact: Carrie J. Richie, Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (R)

241. *Twilio, Inc. v. Telesign Corporation*, IPR2016-01688, Patent Trial and Appeal Board (2016). Served as an expert for petitioner in an *inter partes* review of U.S. Patent 9,300,792, relating to verification of telephone users based on characteristics of the telephone number, such as carrier and geographic location. All challenged claims found unpatentable. Contact: Contact: Carrie J. Richie, Esq., Cooley LLP, 3175 Hanover Street, Palo Alto, CA 94304. (R)

242. *EdiSync Systems, LLC v. Adobe Systems, Inc.*, Civil Action 12-cv-02231-MSK-MEH (D. Colo.). Served as an expert for Defendant Adobe in a case alleging infringement of U.S. Patent 5,799,320, relating to multi-author document editing systems. Case has settled. Contact: David Sipiora, Esq., Kirkpatrick Townsend & Stockton LLP, Suite 600, 1400 Wewatta Street, Denver, CO 80202.

243. *Ford Motor Company v. Versata Software, Inc. et al.*, Case No. 2:15-cv-10628-MFL-EAS (E.D. Mich.). Served as an expert for defendant/counter-plaintiff Versata in a declaratory judgment action relating to alleged infringement of U.S. Patents 5,825,651, 6,405,308 and 6,675,294, relating to product configuration through a graphical user interface; U.S. Patent 7,882,057, relating to complex product configuration using submodels; U.S. Patents 7,200,582 and 7,464,064, relating to checking the consistency of a product configuration model using set equations; and U.S. Patent 8,805,825, relating to product configuration in which attributes are prioritized. Result: jury vedict for Versata for $105 million. Contact: Steve Mitby, Esq., Mitby Pacholder Johnson PLLC, 1001 McKinney St., Suite 925, Houston, TX 77002. (D,R)

244. *Improved Search LLC v. Microsoft Corporation*, C.A. No. 16-cv-650-JFB-SRF (D.Del.). Served as an expert for plaintiff in an action alleging infringement of U.S. Patents 6,604,101 and 7,516,154, relating to methods and systems for translingual searching. Plaintiff sought a judgment of non-infringement so claim constructions could be appealed to the Federal Circuit.

Result: affirmed. Contact: Robert Yorio, Esq., Carr & Ferrell LLP, 120 Constitution Drive, Menlo Park, CA 94025. (D,R)

245. *Comcast Cable Communications, LLC v. Rovi Guides, Inc.*, IPR2017-00866, IPR2017-00867, Patent Trial and Appeal Board. Served as an expert for patent owner in *inter partes* reviews of U.S. Patent 8,713,595, relating to electronic television program guides. All challenged claims found unpatentable. Contact: Josef B. Schenker, Ropes & Gray LLP, 1211 Avenue of the Americas, New York, NY 10036. (D,R)

246. *Comcast Cable Communications, LLC v. Rovi Guides, Inc.*, IPR2017-00950, IPR2017-00951, IPR2017-00952, Patent Trial and Appeal Board. Served as an expert for patent owner in *inter partes* reviews of U.S. Patent 8,006,263, relating to electronic television program guides. All challenged claims found unpatentable. Contact: Josef B. Schenker, Ropes & Gray LLP, 1211 Avenue of the Americas, New York, NY 10036. (D,R)

247. *Unified Patents, Inc. v. Anuwave LLC.*, IPR2018-00223, Patent Trial and Appeal Board. Served as an expert for petitioner in *inter partes* reviews of U.S. Patent 8,295,862, relating to enabling short message system (SMS) communication without using IP services. Terminated by settlement. Contact: Robert High, Esq., Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, 271 17th St. N.W., Suite 1400, Atlanta, GA 30363-6209. (R)

248. *Comcast Cable Communications, LLC v. Rovi Guides, Inc.*, IPR2017-01048, IPR2017-01049, IPR2017-01050, Patent Trial and Appeal Board. Served as an expert for patent owner in *inter partes* reviews of U.S. Patent 8,578,413, relating to electronic television program guides. All challenged claims found unpatentable. Contact: Josef B. Schenker, Ropes & Gray LLP, 1211 Avenue of the Americas, New York, NY 10036. (D,R)

249. *Comcast Cable Communications, LLC v. Rovi Guides, Inc.*, IPR2017-01065, IPR2017-01066, IPR2017-01143, Patent Trial and Appeal Board. Served as an expert for patent owner in *inter partes* review of U.S. Patent 8,046,801, relating to electronic television program guides. All challenged claims found unpatentable. Contact: Josef B. Schenker, Ropes & Gray LLP, 1211 Avenue of the Americas, New York, NY 10036. (D,R)

250. *DevFactory FZ-LLC v. Magnitude Software, Inc.*, Arbitration WIPOA300617. Served as an expert for Claimant DevFactory in an arbitration relating to a claim of breach of a software Technology Services Agreement. Arbitration has terminated. Contact: Steve Mitby, Esq., Ahmad, Zavitsanos, Anaipakos, Alavi & Mensing P.C., 1221 McKinney, Suite 2500, Houston, TX 77010.

251. *BookIT Oy Ajanvarauspalvelu v. Bank of America Corporation et al.*, 3:17-cv-02577-K (N.D. Texas). Served as an expert for BookIT in an action alleging infringement of U.S. Patents 8,589,194 and 9,177,268, relating to mediating communications between a service provider and a user in a telecommunications network. Plaintiff sought a judgment of non-infringement so that claim constructions could be appealed to the Federal Circuit, which affirmed. Contact:

Richard A. Kamprath, Esq., McKool Smith, 300 Crescent Court, Suite 1500, Dallas, TX 75201. (D,R)

252. *Promptu Systems Corporation v. Comcast Corporation et al.*, 2:16-cv-06516-JS (E.D. Pa.). Served as an expert for plaintiff in an action alleging infringement of U.S. Patents 7,047, 196, 7,260,538 and RE44,326, relating to voice control of television set-top boxes. Plaintiff is appealing an adverse claim construction. Contact: Robert Yorio, Esq., Carr & Ferrell LLP, 120 Constitution Drive, Menlo Park, CA 94025. (D,R)

253. *Snap Inc. v. Vaporstream, Inc.*, IPR2018-00200, IPR2018-00312, IPR2018-00369, IPR2018-00397, IPR2018-00404, IPR2018-00408, IPR2018-00416, IPR2018-00439, IPR2018-00455, IPR2018-00458, Patent Trial and Appeal Board. Served as an expert for patent owner in *inter partes* reviews of U.S. Patents 8,886,739, 8,935,351, 9,306,885, 9,306,886, 9,313,155, 9,313,156, 9,313,157, 9,338,111 and 9,413,711, relating to reducing traceability of electronic messages. In IPR2018-00312, IPR2018-00369, IPR2018-00404 and IPR2018-00408 and IPR2018-00458, all challenged claims were found unpatentable. In IPR2018-00397, IPR2018-00416, IPR2018-00439 and IPR2018-00455, and IPR2018-00458, all challenged claims were found patentable. Contact: Douglas R. Wilson, Esq., Heim, Payne & Chorush, LLP, Heritage Plaza, 111 Bagby, Suite 2100, Houston, TX 77002. (R)

254. *Shopify, Inc. v. DDR Holdings, LLC*, IPR2018-01008, IPR2018-01009, IPR2018-01010, IPR2018-01011, IPR2018-01012, IPR2018-01014, Patent Trial and Appeal Board. Served as an expert for petitioner in *inter partes* reviews of U.S. Patents 8,515,825, 9,043,228, and 9,639,876, relating to online affiliate marketing. In 2018-01008 and 2018-01009, the PTAB found all challenged claims patentable. In 2018-01010, 2018-01011, 2018-01012 and 2018-01014, the PTAB found most challenged claims unpatentable, affirmed by the Federal Circuit in 2018-01011, 2018-01012 and 2018-01014. Contact: Jinnie L. Reed, Esq., Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston. MA 02111. (D,R)

255. *Election Systems & Software, LLC v. Dominion Voting Systems, Inc.*, 1:17-cv-01172-CJB (D. Del.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 8,991,701, relating to an accessible voting system. Case has settled. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101.

256. *General Motors LLC et al. v. Dorman Products, Inc. et al.*, 2:15-cv-129170-VAR-EAS (E.D. Mich.). Served as an expert for plaintiff in a case alleging copyright infringement and violation of the anti-circumvention provisions of the Digital Millennium Copyright Act relating to offloading of transmission control software from automobiles. Case has settled. Contact: Aaron A. Barlow, Esq., Jenner & Block LLP, 353 North Clark Street, Chicago, IL 60654-3456.

257. *PPS Data, LLC v. Jack Henry & Associates, Inc.*, Case 2:18-cv-00007-JRG (E.D. Texas). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 7,181,430, 7,216,106, 7,440,924, 7,624,071 and 8,126,809, relating to methods for processing check images in electronic payment systems. The '430, '924, '071 and '809 patent were found invalid by the Court under 35 U.S.C. § 101. After a jury trial, all asserted claims of the '106

patent were found not infringed and invalid. Contact: Anthony H. Son, Esq., Maddox Edwards, PLLC, 1900 K Street NW, Suite 725, Washington, DC 20006. (D,R,T)

258. *NEXT Payment Solutions, Inc. v. CLEAResult Consulting, Inc.*, Case 1:17-cv-08829 (N.D. Illinois). Served as an expert for defendant in a case alleging misappropriation of trade secrets relating to a system for managing energy rebate appointments and inspections. The trade secret counts were dismissed on summary judgment. Contact: Anthony Fuga, Esq., Holland & Knight LLP, 131 S. Dearborn Street, 30th Floor, Chicago, IL 60603. (R)

259. *Certain Digital Video Receivers and Related Hardware and Software Components*, USITC Inv. No. 337-TA-1103. Served as an expert for Complainants Rovi Corporation et al. against Comcast Corporation et al. in an International Trade Commission proceeding involving alleged infringement of U.S. Patents 9,294,799, relating to resumption on a second device of video paused on a first device, and 9,578,363, relating to providing video in a format suitable for a particular device. Those patents were subsequently dropped. Dr. Shamos testified about his observation of user focus groups. The ITC issued an exclusion order, upheld by the Federal Circuit. Contact: Richard A. Kamprath, Esq., McKool Smith, 300 Crescent Court, Suite 1500, Dallas, TX 75201. (D,R,T)

260. *ARM Ltd. et al. v. Complex Memory, LLC*, IPR2019-00053, IPR2019-00058, Patent Trial and Appeal Board. Served as an expert for petitioners in *inter partes* reviews of U.S. Patent 5,890,195, relating to cache memory (SRAM) integrated with main memory (DRAM) and U.S. Patent 6,658,576, relating to an energy-conserving computer operating system. Outcome: both IPRs terminated by settlement. Contact: Kevin Anderson, Esq., Duane Morris LLP, 505 9th Street, NW, Suite 1000, Washington, DC 20004-2166. (R)

261. *Supercell Oy v. Gree, Inc.*, PGR2018-00070, PGR2018-00071, Patent Trial and Appeal Board. Served as an expert for patent owner in post-grant reviews of U.S. Patents 9,770,656 and 9,770,664, relating to user interfaces for multiplayer online games. Institution denied in both PGRs. Contact: Scott McKeown, Esq., Ropes & Gray, L.L.P., 2099 Pennsylvania Avenue, Washington, DC 20006-6807. (R)

262. *Amazon Services, LLC v. South Carolina Dept. of Revenue*, Docket No. 17-ALJ-0238-CC. (S.C. Admin. Ct.). Served as an expert for South Carolina in a tax dispute relating to online sales through Amazon's Merchant Fulfillment Network. Result: Amazon found liable to pay tax. Contact: John Hoefer, Esq., Willoughby & Hoefer, P.A., 940 Richland St., P.O. Box 8416, Columbia, SC 29202-8416. (D)

263. *Supercell Oy v. Gree, Inc.*, PGR2019-00018, Patent Trial and Appeal Board. Served as an expert for patent owner in a post-grant review of U.S. Patent 9,891,799, relating to a method for moving a plurality of objects in a computer game. All claims found unpatentable under 35 U.S.C. § 101. Affirmed by the Federal Circuit. Contact: Scott McKeown, Esq., Ropes & Gray, L.L.P., 2099 Pennsylvania Avenue, Washington, DC 20006-6807. (D,R)

264. *Beal v. Outfield Brew House, LLC.*, Case 2:18-cv-4028 (W.D. Missouri). Served as an expert for plaintiff, representative of a putative class, in a case alleging violation of the

Telephone Consumer Protection Act, 47 U.S.C. § 227, specifically on the issue whether certain dialing systems constitute an "Automatic Telephone Dialing System" under the statute. The District Court ruled for defendant on summary judgment based on statutory interpretation, now on appeal to the Eighth Circuit. Contact: Bill Kenney, Esq., Bill Kenney Law Firm, LLC., 1100 Main St. Suite 1800, Kansas City, MO 64105. (D,R)

265. *Smartmatic USA Corporation v. Election Systems & Software, LLC,* IPR2019-00531, Patent Trial and Appeal Board. Served as an expert for patent owner in an inter partes review of U.S. Patent 8,096,471, relating to a ballot marking device having an attached ballot box and IPR2019-00527 of U.S. Patent 7,753,273. All '471 claims found patentable. Four '273 claims found patentable. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (D,R)

266. *Curling et al. v. Raffensperger et al.,* Case 1:17-CV-2989AT (N.D. Georgia). Served as an expert for defendants Secretary of State and State Election Board in a case in which plaintiffs seek an injunction of forbid use of DRE voting machines in Georgia in 2019. Preliminary injunction denied as to the November 2019 election. Contact: Vincent Russo, Esq., Robbins Ross Alloy Belinfante Littlefield LLC, 500 14th Street N.W., Atlanta, GA 30318. (D,R)

267. *Smith v. Truman Road Development, LLC d/b/a No OtherPub,* Case 4:18-cv-670-NKL (W.D. Missouri). Served as an expert for plaintiff, representative of a putative class, in a case alleging violation of the Telephone Consumer Protection Act, 47 U.S.C. § 227, specifically on the issue whether certain dialing systems constitute an "Automatic Telephone Dialing System" under the statute. The District Court ruled for defendant on summary judgment based on statutory interpretation. Contact: Bill Kenney, Esq., Bill Kenney Law Firm, LLC., 1100 Main St. Suite 1800, Kansas City, MO 64105. (R)

268. *J. T. Hand et al. v. Beach Entertainment, LLC d/b/a Shark Bar,* Case 4:18-cv-668-NKL (W.D. Missouri). Served as an expert for plaintiff, representative of a putative class, in a case alleging violation of the Telephone Consumer Protection Act, 47 U.S.C. § 227, specifically on the issue whether certain dialing systems constitute an "Automatic Telephone Dialing System" under the statute. Partial summary judgment was granted, now on appeal to the Eighth Circuit. Contact: Bill Kenney, Esq., Bill Kenney Law Firm, LLC., 1100 Main St. Suite 1800, Kansas City, MO 64105. (R)

269. *WhereverTV, Inc. v. Comcast Corporation, et al.,* Case 2:18-cv-00529-UA-CM (M.D. Florida). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 8,656,431, relating to a system for integrating television and IPTV channels into a global interactive program guide. Contact: Adam Sanderson, Esq., Reese Marketos LLP, 750 N. St. Paul St., Suite 600, Dallas, TX 75201. (R)

270. *Droplets, Inc. v. Nordstrom, Inc.,* Case 3:12-CV-04049-JST (N.D. Cal.). Served as an expert for defendant in an action alleging infringement of U.S. Patent 8,402,115, relating to delivering interactive links for presenting applications on a client computer. Case has settled.

Contact: Benjamin Kleinman, Esq., Kilpatrick Townsend & Stockton LLP, Two Embarcadero Center Suite 1900, San Francisco, CA 94111. (D,R)

271. *Droplets, Inc. v. Yahoo!, Inc.*, Case 3:12-CV-03733-JST (N.D. Cal.). Served as an expert for defendant in an action alleging infringement of U.S. Patent 8,402,115, relating to delivering interactive links for presenting applications on a client computer. At trial, Plaintiff sought $250 million, was awarded $15 million. Contact: Kevin P. Anderson. Esq., Duane Morris LLP, 505 9th Street, N.W., Suite 1000, Washington, DC 20004-2166. (D,R,T)

272. *Square, Inc. v. 4361423 Canada, Inc. d/b/a AnywhereCommerce*, IPR2019-01651, IPR2019-01652, IPR2019-01653, and IPR2019-001654, Patent Trial and Appeal Board. Served as an expert for petitioner in inter-partes reviews of U.S. Patents 9,443,239, 9,613,351, and 9,818,107, relating to an attachment to a cellphone to facilitate credit card transactions. Result: all challenged claims umpatentable in all four IPRs. Contact: David Tennant, Esq., White & Case, L.L.P., 701 Thirteenth Street, NW, Washington, DC 20005. (R)

273. *Uniloc 2017 LLC. v. Netflix, Inc. et al.*, Lead Consolidated Case SACV8:18-cv-2055-GW-DFMx (C.D. Cal.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 8,407,609, relating to tracking the amount of time a presentation is watched online, and 9,721,273, relating to aggregating and presenting audio and video over a network. Case has settled. Contact: Sal Lim, Esq., Feinberg Day Kramer Alberti Lim Tonkovich & Belloli LLP, 1600 El Camino Real, Suite 280, Menlo Park, CA 94025. (R)

274. Comcast Cable Communications, LLC v. WhereverTV, Inc., IPR2019-01482, and IPR2019-001483, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter-partes reviews of U.S. Patent 8,656,431, relating to a system for integrating television and IPTV channels into a global interactive program guide. Institution denied in both cases. Contact: Adam Sanderson, Esq., Reese Marketos LLP, 750 N. St. Paul St., Suite 600, Dallas, TX 75201. (R)

275. Boom! Payments, Inc. v. Stripe, Inc. et al., Case 3:19-cv-0050-VC (N.D. Cal.). Served as an expert for Defendants Shopify, Inc. and Shopify (USA) Inc. in an action alleging infringement of U.S. Patents 8,429,084, and 9,235,857, relating to a system for confirming that a physical exchange of goods has occurred in an online transaction. All asserted claims found invalid under 35 U.S.C. § 101 upon Defendants' motion to dismiss. Contact: Vincent M. Ferraro, Esq., Mintz, Levin, Cohn, Ferris, Glovsky and Popeo P.C., Chrysler Center, 666 Third Avenue, New York, NY 10017.

276. Curb Mobility, LLC. v. Kaptyn, Inc. et al., Case 2:18-cv-02416-MMD-GWF (D. Nev.). Served as an expert for Defendants in an action alleging infringement of U.S. Patent 6,347,739, relating to a system for accepting credit cards in taxicabs. All asserted claims found invalid under 35 U.S.C. § 101. Contact: Robert Yorio, Esq., Carr & Ferrell LLP, 120 Constitution Drive, Menlo Park, CA 94025. (R)

277. Canon, Inc. v. TCL Electronics Holdings, Ltd., et al., Case 2:18-cv-00546-JRG (E.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patent

7,810,130, relating to buffering video content, U.S. Patent 7,746,413, relating to interpreting instructions from a television remote control, and U.S. Patents 8,078,767, 8,346,986 and 8,713,206, relating to controlling a digital display when an external device has been disconnected. Case has settled. Contact: Kyotaro Ozawa, Esq., Paul Hastings LLC, Ark Hills Sengokuyama Mori Tower, Fortieth Floor 1-9-10 Roppongi, Minato-ku, Tokyo 106-0032 Japan. (D,R)

278. *Uniloc 2017 LLC v. Paychex, Inc.*, Case No. 1:19-cv-11272-RGS (D. Mass.), consolidated for certain purposes with *Uniloc 2017 LLC v. AthenaHealth Inc.*, Case No. 1:19-cv-11278-RGS (D. Mass.). Served as an expert for plaintiff in actions alleging infringement of U.S. Patent 6,324,578, relating to management of configurable application programs on a network. Paychex case dismissed for lack of jurisdiction. Cases have settled. Contact: James J. Foster, Esq., Prince Lobel Tye LLP, One International Place, Suite 3700, Boston, MA 02110. (D,R)

279. *H2O Resources, LLC v. Oilfield Tracking Services, LLC*, AAA Case No. 01-18-0003 6309 (Houston, Texas). Served as an expert for defendants in an arbitration alleging misappropriation of trade secrets under 18 U.S.C. § 1836 and 12 P.S. § 5301 (Pennsylvania) relating to a system for tracking movement of produced water generated from oil and gas drilling. Matter has settled. Contact: Paul Greco, Esq., Fisher Philips LLP, 150 N. Radnor Chester Road, Suite C300, Radnor, PA 19087. (D,R)

280. *J.T. Hand et al. v. ARB KC, LLC d/b/a Angels Rocks Bar*, Case 4:19-cv-108-BCW (W.D. Missouri). Served as an expert for plaintiff, representative of a putative class, in a case alleging violation of the Telephone Consumer Protection Act, 47 U.S.C. § 227, specifically on the issue whether certain dialing systems constitute an "Automatic Telephone Dialing System" under the statute. Contact: Bill Kenney, Esq., Bill Kenney Law Firm, LLC., 1100 Main St. Suite 1800, Kansas City, MO 64105. (R)

281. *Doohan et al. v. CTB Investors, LLC d/b/a PBR Big Sky Cowboy Bar et al.*, Case 4:19-cv-111-FJG (W.D. Missouri). Served as an expert for plaintiff, representative of a putative class, in a case alleging violation of the Telephone Consumer Protection Act, 47 U.S.C. § 227, specifically on the issue whether certain dialing systems constitute an "Automatic Telephone Dialing System" under the statute. Contact: Bill Kenney, Esq., Bill Kenney Law Firm, LLC., 1100 Main St. Suite 1800, Kansas City, MO 64105. (R)

282. *Taylor et al. v. KC Vin, LLC d/b/a/ Pizza Bar, et al.*, Case 4:19-cv-110-NKL (W.D. Missouri). Served as an expert for plaintiff, representative of a putative class, in a case alleging violation of the Telephone Consumer Protection Act, 47 U.S.C. § 227, specifically on the issue whether certain dialing systems constitute an "Automatic Telephone Dialing System" under the statute. Contact: Bill Kenney, Esq., Bill Kenney Law Firm, LLC., 1100 Main St. Suite 1800, Kansas City, MO 64105. (R)

283. *The Thomas L. Pearson and The Pearson Family Members Foundation, et al. v. The University of Chicago*, Case 4:18-cv-00099-GKF-FHM (N.D. Oklahoma). Served as an expert for plaintiffs in an action alleging breach of an agreement granting $100 million to the

University of Chicago. Case has settled. Contact: P. Scott Hathaway, Esq., Conner & Winters, LLP, 4000 One Williams Center, Tulsa, OK 74172-0148. (D,R)

284. *ESW Holdings, Inc. v. Roku, Inc.*, Case 6:19-cv-00044-ADA (W.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patent 9,420,349, relating to monitoring a digital media stream and identifying media objects through fingerprinting. Jury verdict for defendent. Contact: Conor Civins, Esq., Bracewell LLP, 111 Congress Avenue, Suite 2300, Austin, TX 78701-4061 (D,R,T)

285. *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Patent Trial and Appeal Board. Served as an expert for Patent Owner in an inter-partes review of U.S. Patent 8,843,125, relating to a system and method for managing a mobile wallet through a Trusted Service Manager (TSM). Institution denied. Contact: Marcus Barber, Esq., Kasowitz Benson Torres LLP, 333 Twin Dolphin Drive, Suite 200, Redwood Shores, CA 94065. (D, R)

286. *Election Systems & Software, LLC v. Hart InterCivic, Inc.*, PGR2020-00031, Patent Trial and Appeal Board. Served as an expert for petitioner in a post-grant review of U.S. Patent 10,445,966, relating to conversion of printed ballots into cast vote records by optical character recognition. Result: all challenged claims unpatentable. Federal Circuit appeal was dismissed by Patent Owner. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (D,R)

287. *Launius v. Flores, in her official capacity as Presiding Officer, Chair of Trustees, of Dallas County Community College District*, Cause DC-19-08429 (Dist. Ct., Dallas Cty., Texas). Served as an expert for contestee in an action alleging that an election held May 4, 2019 approving a $1 billion bond issue should be overturned because "the true outcome of the election cannot be ascertained." After a bench trial, the Court granted judgment in favor of contestee. Affirdmed by the Court of Appeals. The Texas Supreme Court declined review. Contact: Adam Rothey, Esq., Thompson & Horton LLP, 500 N. Akard St., Suite 3150, Dallas, TX 75201. (D,T)

288. *Slyce Acquisition, Inc. v. Syte - Visual Conception Ltd. et al.*, Case 6:19-cv-00257-ADA (W.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patent 9,152,624, relating to navigating Web content via image analysis. Case has settled. Contact: Michael Chibib, Esq., Bracewell LLP, 111 Congress Avenue, Suite 2300, Austin, TX 78701-4061 (R)

289. *Early Warning Services, LLC v. William Grecia*, IPR2020-00763, Patent Trial and Appeal Board. Served as an expert for petitioner in an inter partes review of U.S. Patent 8,887,308, relating to generation of tokens authenticating users seeking access to digital cloud content. Review was not instituted, but the patent was found invalid on § 101 grounds in litigation. Contact: Cory Smith, Esq., Bryan Cave Leighton Paisner LLP, Two North Central Avenue, Suite 2100, Phoenix, AZ 85004-4406. (R)

290. *Supercell Oy v. Gree, Inc.*, PGR2020-00063, Patent Trial and Appeal Board. Served as an expert for patent owner in a post-grant review of U.S. Patent 10,406,432, relating to a method for providing information in a head-mounted display based on gaze sensing. Institution

denied. Contact: Scott McKeown, Esq., Ropes & Gray, L.L.P., 2099 Pennsylvania Avenue, Washington, DC 20006-6807. (R)

291. *Digital Retail Apps, Inc. v. H-E-B Grocery Company, LP*, Case 6:19-cv-00167-ADA (W.D. Texas). Served as an expert for defendant in an action alleging infringement of U.S. Patents 9,262,781, and 9,934,506, relating to use of QR codes in point-of-sale electronic payment applications. Case settled before trial. Contact: Andrew Klein, Esq., Perkins Coie LLP, 3150 Porter Drive, Palo Alto, CA 94304-1212. (D,R)

292. *HLFIP Holding, Inc. d/b/a/ Smart Communications IP Holdings v. Rutherford County, Tennessee et al.*, Case 3:19-cv-00714 (M.D. Tenn.). Served as an expert for intervenor VendEngine, Inc. in an action alleging infringement of U.S. Patent 10,291,617, relating to a computerized method of eliminating contraband in mail directed to correctional facilities. Defendant and intervenor prevailed on judgment on the pleadings that the patent was ineligible under 35 U.S.C. § 101. Contact: W. Edward Ramage, Esq., Baker Donelson, Bearman, Caldwell & Berkowitz, P.C., Monarch Plaza, Suite 1600, 3414 Peachtree Road N.E., Atlanta, GA 30326. (D,R)

294. *Broadband iTV, Inc. v. DISH Network, L.L.C.*, Case 6:19-cv-716-ADA (W.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 9,648,388, 9,998,791, 10,028,026 and 10,506.269, relating to hierarchical navigation of video-on-demand television menus. Case has settled. Contact: Sal Lim, Esq., Kramer Day Alberti Lim Tonkovich & Belloli LLP, 577 Airport Boulevard, Suite 250, Burlingame, California 94010. (D,R)

295. *Arendi S.A.R.L. v. Blackberry Limited et al.*, Case 1:12-cv-01595-LPS (D. Del.). Serving as an expert for Defendant in an action alleging infringement of U.S. Patents 7,917,843 and 8,306,993, relating to a touchscreen mechanism for providing name and address handling by an associated information system. Contact: Jason W. Cook, Esq., McGuireWoods LLP, 2000 McKinney Ave., Suite 1400, Dallas, TX 75201. (D,R)

296. *Unified Patents, LLC v. Monarch Networking Solutions LLC*, IPR2020-01708, Patent Trial and Appeal Board. Served as an expert for petitioner in an inter partes review of U.S. Patent 7,756,507, relating to out-of-band authentication to obtain access to a digital network. All challenged claims found unpatentable. Contact: John M. Baird, Esq., Duane Morris LLP, 505 9th Street, N.W., Suite 1000, Washington, DC 20004-2166. (R)

297. *Aqua Connect, Inc. et al. v. TeamViewer U.S. Inc. et al.*, Case 1:18-cv-01572-MN (D. Del.). Served as an expert for Plaintiffs in an action alleging infringement of U.S. Patents RE46,386 and 8,924,502, relating to updating a user session in a Mach-derived system environment. At trial, the jury awarded Plaintiffs $5.7 million, before prejudgment interest. Contact: Ryan E. Hatch, Esq., Hatch Law, P.C., 13323 Washington Blvd., Suite 100, Los Angeles, CA 90066. (D,R,T)

298. *PayPal, Inc. v. RetailMeNot, Inc.*, Case 6:20-cv-00339-ADA (W.D. Texas). Served as an expert for PayPal in an action alleging infringement by RetailMeNot of U.S. Patents 6,917,961 and 7,693,937, relating to evolving interactive browser dialog boxes, U.S. Patent 7,659,905,

relating to pre-fetching data on a network, U.S. Patents 8,909,248 and 9,654,923, relating to provision of location-based services, and U.S. Patents 9,053,514 and 9,082,153, relating to automatic rebate and coupon redemption, and alleging in counterclaims infringement by PayPal of U.S. Patents 10,296,931, and 10,489,814, relating to accessing promotional offers displayed on websites by circumventing secure sandbox protections. Case has settled. Contact: Steve Marshall, Esq., Fish & Richardson, P.C., 1000 Maine Avenue, S.W., Suite 1000, Washington, DC 20024.

299. *Rovi Guides, Inc. et al. v. Comcast Corporation et al.*, Case No. 2:18-cv-00253-AG-FFM (C.D. Cal.). Served as an expert for plaintiffs in an action alleging infringement of U.S. Patents 7,827,585, relating to electronic TV program guides, 9,294,799, relating to an on-demand media delivery system, 9,369,741, relating to an interactive television reminder system, 9,578,363, relating to accessing video content via standard and high-definition channels, 9,621,956, relating to a television transport control interface, and 9,668,014, relating to methods for storing video assets. Case has settled. Contact: Richard A. Kamprath, Esq., McKool Smith, 300 Crescent Court, Suite 1500, Dallas, TX 75201.

300. *RetailMeNot, Inc. v. Honey Science, LLC,* Case 1:18-cv-00937-CFC-MPT (D. Del.). Served as an expert for defendant in an action alleging infringement of U.S. Patents 9,626,688, 10,290,015, 10,296,931, and 10,489,814, relating to accessing promotional offers displayed on websites by circumventing secure sandbox protections. Case has settled. Contact: Richard Birnholz, Esq., Irell & Manella LLP, 1800 Avenue of the Stars, Suite 900, Los Angeles, CA 90067-4276.

301. *Certain Video Processing Devices, Components Thereof, and Digital Smart Televisions Containing the Same*, USITC Inv. No. 337-TA-1222. Served as an expert for Complainant DivX, LLC against numerous smart television manufacturers in an International Trade Commission proceeding involving alleged infringement of, *inter alia*, U.S. Patent 8,832,297, relating to multiphase adaptive bitrate streaming. Case has settled. Contact: Jessica Perry, Esq., Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111.

302. *Google LLC v. Sonos, Inc.*, Case No. 3:20-cv-03845-EMC (N.D. Cal.). Served as an expert for Google in an action alleging infringement of U.S. Patent 7,065,206, relating to echo and noise control, 7,899,187, relating to digital rights management, 8,583,489, relating to notification of availability of media content, 10,140,375, relating to personalized network searching, and 10,229,586, relating to communication via wireless sensor systems. Result: all claims dismissed on summary judgment. Contact: Patrick D. Curran Esq., Quinn Emanuel Urquhart & Sullivan LLP, 111 Huntington Avenue, Suite 520, Boston, MA 02199. (R)

303. *Hitel Technologies LLC v. Nike, Inc.*, Case 6:20-cv-00591-ADA (W.D. Texas). Served as an expert for Nike in an action alleging infringement of U.S. Patent 7,689,617, relating to adaptive learning during Web navigation. Case was dropped by plaintiff during claim construction. Contact: Christopher Renk, Esq., Arnold & Porter Kaye Scholer LLP, 70 West Madison Street, Suite 4200, Chicago, IL 60602-4231.

304. *Hitel Technologies LLC v. Levi Strauss & Co.*, Case 6:20-cv-00589-ADA (W.D. Texas). Served as an expert for Levi Strauss in an action alleging infringement of U.S. Patent 7,689,617, relating to adaptive learning during Web navigation. Case was dropped by plaintiff during claim construction. Contact: Robert A. McFarlane, Esq., Hanson Bridgett LLP, 425 Market Street, 26th Floor, San Francisco, CA 94105.

305. *Unified Patents, LLC v. Caselas, LLC*, IPR2021-00799, Patent Trial and Appeal Board. Served as an expert for petitioner in an inter partes review of U.S. Patent 9,715,691, relating to providing information about charge-backs in credit reports. Result: all challenged claims found unpatentable. See Final Written Decision. Contact: Larissa Bifano, Esq., DLA Piper LLP, 33 Arch Street, 26th Floor, Boston, MA 02110-1447. (D,R)

306. *Fortinet, Inc. v. Forescout Technologies, Inc.*, Case 3:20-cv-03343-EMC-ADA (N.D. Cal.). Served as an expert for plaintiff in an action alleging infringement of U.S. Patents 8,458,314, relating to administration of network security privileges, 9,369,299, relating to methods for controlling remote network access, 9,503,421, relating to security information and event management, 9,894,034, relating to configuration of network endpoint security, and 9,948,662, relating to application layer network security. Case has settled. Contact: Rachel Blitzer, Esq., Skadden, Arps, Slate, Meagher & Flom LLP, One Manhattan West, New York, NY 10001. (R)

307. *Delaware North iGaming, Inc. v. Miomni Gaming Ltd. et al.*, C.A. 2019-0301-JTL (Del. Ch.). Served as a court-appointed expert in a matter alleging breach of contract to provide software and computing services. Case has settled. Contact: Vice-Chancellor J. Travis Laster, Court of Chancery, 500 North King Street, Wilmington, DE 19801.

308. *Zillow Group et al. v. International Business Machines Corp.*, IPR2020-01656, Patent Trial and Appeal Board. Served as an expert for patent owner in an *inter partes* review of U.S. Patent 8,315,904, relating to a computerized method for managing promotions. Review was instituted, but all Challenged Claims were found patentable. Contact: Gautam Patnaik, Esq., Desmarais, LLP, 1701 Pennsylvania Avenue NW, Suite 200, Washington, D.C. 20006. (D,R)

309. *ByteDance Ltd. and TikTok Inc. v. Triller, Inc.*, IPR2021-00099, Patent Trial and Appeal Board. Served as an expert for patent owner in an *inter partes* review of U.S. Patent 9,691,429, relating to systems and methods for creating music videos synchronized with an audio track. Case has settled. Contact: Brent Lorimer, Esq., Workman Nydegger, 60 East South Temple, Suite 1000, Salt Lake City, UT 84111. (D,R)

310. *Broadband iTV, Inc. v. Amazon.Com, Inc. et al.*, Case 6:20-cv-921-ADA (W.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 9,648,388, 9,973,826, 10,028,026, 10,506,269, 10,536,750 and 10,536,751, relating to hierarchical navigation of video-on-demand television menus. Asserted claims found invalid as non-statutory, affirmed by the Federal Circuit. Contact: Sal Lim, Esq., Kramer Day Alberti Lim Tonkovich & Belloli LLP, 577 Airport Boulevard, Suite 250, Burlingame, California 94010. (D,R)

311. *DISH Network, L.L.C, v. Broadband iTV, Inc.*, IPR2020-01267, Patent Trial and Appeal Board. Served as an expert for patent owner in in an *inter partes* review of U.S. Patent 10,028,026, relating to hierarchical navigation of video-on-demand television menus. Case has settled. Contact: Sal Lim, Esq., Kramer Day Alberti Lim Tonkovich & Belloli LLP, 577 Airport Boulevard, Suite 250, Burlingame, California 94010. (D,R)

312. *DISH Network, L.L.C, v. Broadband iTV, Inc.*, IPR2020-01280, Patent Trial and Appeal Board. Served as an expert for patent owner in in an *inter partes* review of U.S. Patent 9,998,791, relating to hierarchical navigation of video-on-demand television menus. Case has settled. Contact: Sal Lim, Esq., Kramer Day Alberti Lim Tonkovich & Belloli LLP, 577 Airport Boulevard, Suite 250, Burlingame, California 94010. (D,R)

313. *DISH Network, L.L.C, v. Broadband iTV, Inc.*, IPR2020-01359, Patent Trial and Appeal Board. Served as an expert for patent owner in in an *inter partes* review of U.S. Patent 9,648,388, relating to hierarchical navigation of video-on-demand television menus. Case has settled. Contact: Sal Lim, Esq., Kramer Day Alberti Lim Tonkovich & Belloli LLP, 577 Airport Boulevard, Suite 250, Burlingame, California 94010. (D,R)

314. *Justservice.net, LLC. v. Dropbox, Inc.*, Case 6:20-cv-00070-ADA (W.D. Texas). Served as an expert for Defendants in an action alleging infringement of U.S. Patents 8,126,990, 8,195,776, 8,392,542, 9,722,993, 10,387,270 and 10,476,868, relating to network-based file backup systems. Case has settled. Contact: Monica Grewal, Esq., Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, MA 02109.

315. *Dropbox, Inc. v. Motion Offense, LLP*, Case 6:20-cv-00251-ADA (W.D. Texas). Served as an expert for declaratory judgment plaintiff Dropbox in an action relating to alleged infringement of U.S. Patents 10,013,158, 10,021,052, 10,303,353, 10,587,548, and 10,613,737, relating to file-sharing systems. At trial, all asserted claims were found not infringed, not entitled to priority to 2012, and were found invalid. Contact: Monica Grewal, Esq., Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, MA 02109. (D,R,T)

316. *HealthPlanCRM, LLC d/b/a Cavulus v. AvMed, Inc. et al.*, Case 01-19-0002-2557 (American Arbitration Association). Served as an expert for respondents in an arbitration alleging misappropriation of trade secrets concerning a customer relationship management (CRM) platform relating to Medicare Advantage Plans. Result: all claims dismissed by arbitrator. Contact: Chris Schwing, Esq., Holland & Knight LLP, 50 N. Laura Street, Suite 3900, Jacksonville, FL 32202. (R)

317. *Talavera et al. v. Global Payments, Inc. et al.*, Case 3:21-cv-1585-TWR-AGS (S.D. Cal.). Served as an expert for defendants in an action alleging infringement of copyright in a computer program that operates storefronts for online purchase of school supplies. Contact: Matthew D. Murphey, Esq., Murphey & Murphey, 120 Vantis Drive, Suite 300, Aliso Viejo, California 92656. (R)

318. *AlphaSense Oy et al. v. Sentieo, Inc.*, Case 1:21-cv-01011-CFC/JLH-MPT (D. Del.). Served as an expert for defendant in a case alleging infringement of U.S. Patent 11,023,675, relating to a

user interface for a financial document search engine. Case has settled. Contact: Jennifer Ying, Esq., Morris, Nichols, Arsht & Tunnell, LLP, 1201 North Market Street, 16th Floor, Wilmington, DE 19899-1347. (R)

319. *Triller, Inc. v. TikTok PTE, Ltd.*, IPR2022-00179, IPR2021-00180, and IPR2021-00181, Patent Trial and Appeal Board. Served as an expert for petitioner in *inter partes* reviews of U.S. Patents 9,294,430, 9,648,132, and 9,992,232, relating to systems and methods for locating and downloading digital music to a wireless device. Review was instituted in 2022-00179 and 2022-00180; denied in 2022-00181. Case has settled. Contact: Brent Lorimer, Esq., Workman Nydegger, 60 East South Temple, Suites 1000, Salt Lake City, UT 84111. (D,R)

320. *RFCyber Corp. v. Google LLC and Google Payment Corp.*, C.A. 2:20-cv-00274-JRG (E.D. Texas). Served as an expert for Google in an action alleging infringement of U.S. Patents 6,292,657, 8,118,218, 8,448,855, 9,189,787, 9,240,009, and 10,600,046, relating to electronic commerce payment methods. Case has settled. Contact: Heather Takahashi, Esq., Munger, Tolles & Olson LLP, 355 South Grand Avenue, Los Angeles, CA 90071.

321. *KioSoft Technologies, LLC et al. v. PayRange, Inc.*, PGR2021-00077, Patent Trial and Appeal Board. Served as an expert for patent owner in a post-grant review of U.S. Patent 10,719,833, relating to methods for authorizing payments wirelessly at vending machines. Result: claim 1 unpatentable; claims 2-27 not unpatentable. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304. (D,R)

322. *Fintiv, Inc. v. Apple, Inc.* C.A. 1:21-cv-00896-ADA (W.D. Texas). Serving as an expert for plaintiff in an action alleging infringement of U.S. Patent 8,843,125, relating to a system and method for managing a mobile wallet through a Trusted Service Manager (TSM). Defendant obtained summary judgment of non-infringement, reverse and remanded by the Federal Circuit. After remand, the District Court dismissed the case based on an adverse claim construction, now on appeal to the Federal Circuit. Contact: Marcus Barber, Esq., Kasowitz Benson Torres LLP, 333 Twin Dolphin Drive, Suite 200, Redwood Shores, CA 94065. (D, R)

323. *NRT Technology Corp. et al. v. Everi Holdings Inc. et al.*, C.A. 1:19-cv-00804-MN (D. Del.). Serving as an expert for Plaintiffs in an action alleging misuse of U.S. Patent 6,081,792, relating to structuring ATM and POS transactions with respect to withdrawal limits. Contact: Colby B. Springer, Esq., Polsinelli LLP (formerly at Lewis Roca Rothgerber LLP), Three Embarcadero Center, Suite 1350, San Francisco, CA 94111. (D,R)

324. *KioSoft Technologies, LLC et al. v. PayRange, Inc.*, PGR2021-00093, Patent Trial and Appeal Board. Served as an expert for patent owner in a post-grant review of U.S. Patent 10,891,614, relating to methods for authorizing payments wirelessly at vending machines. Claims 7, 11-13, 16 and 17 found not unpatentable. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304. (D,R)

325. *OANDA Corporation v. GAIN Capital Holdings Inc. et al.*, C.A. 3:20-cv-05784-ZNQ-DEA (D. N.J.). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents

7,146,336 and 8,392,311, relating to systems and methods of online currency trading. Case has settled. Contact: Drew Koning, Esq., Koning Zolar LLP 169 Saxony Road, Suite 115, Encitas, CA 92024-6780. (R)

326. *AnywhereCommerce, Inc. et al. v. Ingenico, Inc. et al.*, C.A. 1:19-cv-11457-IT (D. Mass.). Served as an expert for Defendants in an action alleging infringement misappropriation of trade secrets involving card reading devices connecting to cellphones via audio jack. Result: verdict for Defendants. Contact: Jeffrey Techentin, Esq., Adler Pollock & Sheehan P.C., One Citizens Plaza, 8th Floor, Providence, RI 02903-1345. (D,R,T)

327. *Samsung Electronics Co. Ltd. v. Aire Technology Ltd,*, IPR2022-00875, Patent Trial and Appeal Board. Served as an expert for petitioner in an *inter partes* review of U.S. Patent 8,205,249, relating to a method for carrying out a secure electronic transaction. Terminated by settlement prior to institution. Contact: Daniel Tishman, Esq., Fish & Richardson, P.C., 1000 Maine Avenue, S.W., Suite 1000, Washington, DC 20024. (R)

328. *Content Square SAS v. Quantum Metric, Inc.*, IPR2022-01167, Patent Trial and Appeal Board. Served as an expert for petitioner in an *inter partes* review of U.S. Patent 11,036,823, relating to a method for capturing and replaying user interactions with a webpage through a Document Object Model (DOM) tree. Terminated by settlement. Contact: Stephen R. Smith, Esq., Cooley LLP, 1299 Pennsylvania Avenue, NW, Suite 700, Washington, DC 20004-2400. (R)

329. *Open Text Corporation et al. v. SAS C6*, C.A. 2084-cv-02578-BLS1 (Mass. Super.). Served as an expert for Defendant in an action alleging breach of a software license agreement and misappropriation of trade secrets involving enterprise content management systems. Case has settled. Contact: Matthew C. Hurley, Esq., Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., One Financial Center, Boston, MA 02111. (R)

330. *ABG Intermediate Holdings 2, LLC at al. v. Bolt Financial, Inc.*, C.A. 22-cv-00473-IT (S.D. N.Y.). Served as an expert for Plaintiff in a case alleging breach of contract for development of an ecommerce software platform and misuse of proprietary information. Case has settled. Contact: Bill Natbony, Esq., Cadwalader, Wickersham & Taft LLP, 200 Liberty Street, New York, NY 10281.

331. *In the Matter of Certain Digital Set-Top Boxes and Systems and Services Including the Same*, USITC Inv. No. 337-TA-1315. Served as an expert for Complainant Broadband iTV, Inc. in an ITC proceeding alleging infringement of U.S. Patents 9,866,909, 9,936,240, 10,555,014, and 11,277,669, relating to hierarchical navigation of video-on-demand television menus. Case has settled. Contact: Sal Lim, Esq., Kramer Day Alberti Lim Tonkovich & Belloli LLP, 577 Airport Boulevard, Suite 250, Burlingame, California 94010. (R)

332. *Proofpoint, Inc. et al. v. Vade Secure Incorporated et al.*, Case 3:19-cv-04238-MMC (N.D. Cal.). Served as an expert for plaintiffs in an action alleging misappropriation of trade secrets and breach of employment and confidentiality agreements relating to cybersecurity technology.

Result: jury verdict for plaintiffs for $13.9 million. Contact: Sean Pak, Esq., Quinn Emanuel Urquhart & Sullivan, LLP, 50 California Street, 22nd Floor San Francisco, California 94111.

333. *Apple, Inc. v. Fintiv, Inc.*, IPR2022-00976, Patent Trial and Appeal Board. Served as an expert for Patent Owner in an inter-partes review of U.S. Patent 9,892,386, relating to a mobile financial services system for making payments using mobile wallets. All challenged claims found unpatentable, appeal to the Federal Circuit dismissed as moot. Contact: Marcus Barber, Esq., Kasowitz Benson Torres LLP, 333 Twin Dolphin Drive, Suite 200, Redwood Shores, CA 94065. (D,R)

334. *BJ's Wholesale Club Holdings, Inc. v. Walmart Apollo, LLC.*, IPR2022-01471, Patent Trial and Appeal Board. Served as an expert for Petitioner in an inter-partes review of U.S. Patent 10,121,133, relating to a method for retail self-checkout using a mobile device. Institution was denied. Contact: Michael Messinger, Esq., Vorys, Sater, Seymour and Pease LLP, 1909 K Street NW, Suite 900, Washington, DC 20006-1152. (D,R)

335. *KioSoft Technologies, LLC et al. v. PayRange, Inc.*, PGR2021-00084, Patent Trial and Appeal Board. Served as an expert for patent owner in a post-grant review of U.S. Patent 10,891,608, relating to methods for authorizing payments wirelessly at vending machines. Review was not instituted. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304.

336. *Versata Software, Inc., et al. v. Configit A/S*, Case 2:20-cv-09019-JAK-MRW (C.D. Cal.). Served as an expert for Plaintiff in an action alleging trade secret misappropriation and infringement of U.S. Patents 6,836,766 and 10,360,612, relating to product configuration systems. Case has settled. Contact: Michael Chibib, Esq., Bracewell LLP, 111 Congress Avenue, Suite 2300, Austin, TX 78701-4061 (R)

337. *Apple, Inc. v. Mozido-Corfire-Korea, Ltd.*, IPR2022-01149, Patent Trial and Appeal Board. Served as an expert for real party in interest Fintiv, Inc. in an inter-partes review of U.S. Patent 10,223,692, relating to a method for establishing temporary payment cards on a mobile device. All challenged claims found unpatentable. Contact: Marcus Barber, Esq., Kasowitz Benson Torres LLP, 333 Twin Dolphin Drive, Suite 200, Redwood Shores, CA 94065. (D,R)

338. *Apple, Inc. v. Mozido, Inc.*, IPR2022-01150, Patent Trial and Appeal Board. Served as an expert for real party in interest Fintiv, Inc. in an inter-partes review of U.S. Patent 9,189,785, relating to a method for selecting a debit network using a scannable code. Some challenged claims found unpatentable. Claims 5, 12, and 19 found patentable. Contact: Marcus Barber, Esq., Kasowitz Benson Torres LLP, 333 Twin Dolphin Drive, Suite 200, Redwood Shores, CA 94065. (D,R)

339. *In re Xyrem (Sodium Oxybate) Antitrust Litigation*, Case 5:20-md-02966-RS (N.D. Cal.). Deposed as a fact witnesss concerning expert reports submitted in case 149, *Jazz Pharmaceuticals, Inc. v. Roxane Laboratories, Inc.*, regarding methods for controlling the

distribution of sensitive drugs. Contact: Jack E. Pace III, Esq., White & Case LLP, 1221 Avenue of the Americas, New York, NY 10020 (D)

340. *Roku, Inc. v. IOENGINE, LLC,* IPR2022-01257, IPR2022-01258, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter-partes reviews of U.S. Patent 10,447,819, relating to a secure portable device implementing a plug-n-play VPN. Institution denied in both IPRs. Contact: Greg Chuebon, Esq., Dechert LLP, Three Bryant Park, 1095 Avenue of the Americas, New York, NY 10036-6797. (D,R)

341. *Beijing Meishe Network Technology Co., Ltd. v. TikTok Inc.*, C.A. 3:23-cv-06012-SI (N.D. Cal). Served as an expert for plaintiff in an action alleging copyright infringement and trade secret misappropriation of software for editing video and audio on mobile devices. Case has settled. Contact: Stephanie Wood, Esq., Cherian LLP, 8350 N. Central Expressway, Suite 1900, Dallas, TX 75206.

342. *Ivanti, Inc. v. Patch My PC, LLC,* C.A. 1:22-cv-00643-NYW-SKC (D. Col.). Served as an expert for defendant in an action alleging infringement of U.S. Patents 6,990,660, 7,823,147 and 8,407,687, relating to methods for updating software remotely over a network by using patch fingerprints. On summary judgment, all asserted claims were found paten-ineligible under 35 U.S.C. § 101. Contact: Daniel W. McDonald, Esq., Merchant & Gould P.C., Suite 220, 150 S. Fifth St., Minneapolis MN 55402. (D,R)

343. *Samsung Electronics, Co. Ltd. v. Cardware, Inc.*, IPR2023-00196, IPR2023-00210, IPR2023-00211, and IPR2023-00219, Patent Trial and Appeal Board. Served as an expert for Petitioner in inter-partes reviews of U.S. Patents 10,810,579 (IPR 196), 10,339,520 (IPRs 210, 211), and 11,176,538 (IPR 219), relating to a device for simulating a magnetic-stripe credit card. Institution was denied in IPR2023-00210; the remainder settled. Contact: Nicholas Stevens, Esq., Fish & Richardson, 60 South Sixth Street, Suite 3200, Minneapolis, MN 55402. (D,R)

344. *Snap, Inc. v. YouMap, Inc.*, IPR2022-00568, Patent Trial and Appeal Board. Served as an expert for Patent Owner in an inter-partes review of U.S. Patent 10,616,727, relating to providing location information associated with social network posts. Result: 16 substitute claims found patentable. Contact: Richard A. Catalina, Esq., Jardim, Meisner & Susser, P.C., 766 Shrewsbury Ave., Suite E-202, Tinton Falls, NJ 07724. (D,R)

345. *Everi Payments, Inc. v. Sightline Payments LLC,* IPR2022-00614, IPR2022-00663, and, IPR2022-00696, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter-partes reviews of U.S. Patents 8,708,809 (IPR 614), 8,998,708 (IPR 663), 9,196,123 (IPR 696), 9,466,176 (IPR 706), and 9,785,926 (IPR 707), relating to systems for funding casino gaming accounts also usable for non-gaming purposes. All challenged claims found unpatentable. Contact: James Murphy, Esq., Polsinelli LLP, 1000 Louisiana Street, 64 Fl, Houston, TX 77002. (D,R)

346. *SurgeTech, LLC v. Uber Technologies, Inc.*, C.A. 1:22-cv-00882-GBW-CJB (D. Del.). Served as an expert for plaintiff in an action alleging infringement of U.S. Patents 11,334,598, 11,360,999 and 11,475,047, relating to methods for allocating and pricing transportation

services based on supply, demand and performance factors. The asserted claims were found patent-ineligible on a motion of judgment on the pleadings, now on appeal to the Federal Circuit. Contact: James Glass, Esq., Quinn Emanuel Urquhart & Sullivan LLP, 51 Madison Avenue, 22nd Floor, New York, New York 10010.

347. *Samsung Electronics, Co. Ltd. v. Cardware, Inc.*, IPR2023-00314, Patent Trial and Appeal Board. Served as an expert for Petitioner in an inter-partes review of U.S. Patent 10,628,820, relating to a device for simulating a magnetic-stripe credit card. Case has settled. Contact: Nicholas Stevens, Esq., Fish & Richardson, 60 South Sixth Street, Suite 3200, Minneapolis, MN 55402. (R)

348. *Election Systems & Software, LLC v. Smartmatic USA Corporation*, 1:18-cv-01259-UNA (D. Del.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 8,096,471, relating to a ballot marking device having an attached ballot box. The asserted claims were found ineligible under 35 U.S.C. § 101. Affirmed by the Federal Circuit. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (D,R)

349. *Textile Computer Systems, Inc. v. Broadway National Bank et al.*, 6:21-cv-00150-ADA (W.D. Tex.). Served as an expert for defendants in cases (including 6:21-cv-00152, 6:21-cv-00154, 6:21-cv-00156 and 6:21-cv-00157) alleging infringement of U.S. Patents 8,505,079, 8,533,802, 9,584,499, 10,148,659, and 10,560,454 relating to online authentication methods. Case has settled. Contact: Jeffrey D. Blake, Esq., Merchant & Gould, 191 Peachtree Street NE, Suite 3800, Atlanta, GA 30303.

350. *Kroy IP Holdings, LLC v. Groupon, Inc.*, 1:17-cv-01405-MN (D. Del.). Served as an expert for defendant in a case alleging infringement of U.S. Patent 6,061,660, relating to online incentive and award fulfillment methods. All claims found invalid on a motion to dismiss alleging collateral estoppel based on prior IPRs. Reversed and remanded by the Federal Circuit in February 2025 in 2023-1359. Contact: Ryan Phelan, Esq., Marshall, Gerstein & Borun, LLP, 233 South Wacker Drive, 300 Willis Tower, Chicago, IL 60606-6357.

351. *Underwood v. IFA Holdings, LLC dba Cygnal*, 1:21-cv-00830-ACA (N.D. Ala.). Served as an expert for defendant in a case alleging violations of the Telephone Consumer Protection Act (TCPA), 47 U.S.C. § 227. Case has settled. Contact: Stephen J. Baumgarner, Esq., Maynard Cooper & Gale LLP, 1901 Sixth Ave. North, Suite 1700, Birmingham, AL 35203.

352. *BJ's Wholesale Club Holdings, Inc. v. Walmart Apollo, LLC.*, IPR2022-01528, -01561, -01563, -01564, Patent Trial and Appeal Board. Served as an expert for Petitioner in an inter-partes reviews of U.S. Patent 10,803,435, relating to a method for retail self-checkout using a mobile device. Institution was denied in 1561. In 1528, 1563, and 1564, all challenged claims were found unpatentable. Contact: Michael Messinger, Esq., Vorys, Sater, Seymour and Pease LLP, 1909 K Street NW, Suite 900, Washington, DC 20006-1152. (D,R)

353. *Samsung Electronics, Co. Ltd. v. Cardware, Inc.*, PGR2023-00012, PGR2023-00013, Patent Trial and Appeal Board. Served as an expert for Petitioner in post-grant reviews of U.S.

Patent 11,328,286, relating to a device for simulating a magnetic-stripe credit card. Trial has been instituted in both cases. Case has settled. Contact: Nicholas Stevens, Esq., Fish & Richardson, 60 South Sixth Street, Suite 3200, Minneapolis, MN 55402. (R)

354. *Daedalus Blue, LLC v. Microsoft Corporation*, Case 6:20-cv-01152-ADA (W.D. Texas). Served as an expert for plaintiff in an action alleging infringement by of U.S. Patent 7,177,886, relating to reliable backup to remote servers, U.S. Patent 7,437,730, relating to scalable on-demand virtual machine deployment, U.S. Patent 8,381,209, relating to hypervisor access control mechanisms, U.S. Patent 8,572,612, relating to scaling of virtual machines in a cloud computing environment, and U.S. Patent 8,671,232, relating to policy-based data management in storage-area networks. Case has settled. Contact: Robin Curtis, Esq., Bunsow De Mory LLP, 701 El Camino Real, Redwood City, CA 94063.

355. *Ebates Performance Marketing, Inc. d/b/a Rakuten Rewards v. International Business Machines Corporation*, IPR2022-00646, Patent Trial and Appeal Board. Served as an expert for Patent Owner in an *inter partes* review of U.S. Patent 7,631,646, relating to single sign-on in a federated computing environment. Claims 1–4, 12–16, 18, 19 found unpatentable; claims 5–11, 17, and 20 not unpatentable. Contact: Karim Oussayef, Esq., Desmarais, LLP, 230 Park Avenue, 26th Floor, New York, NY 10169. (D,R)

356. *Roku, Inc. v. IOENGINE, LLC*, IPR2022-01551, IPR2022-01552, IPR2022-01553, IPR2022-01554, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter-partes reviews of U.S. Patent 10,972,584, relating to a secure portable device implementing a plug-n-play VPN. Institution denied in all four cases. Contact: Greg Chuebon, Esq., Dechert LLP, Three Bryant Park, 1095 Avenue of the Americas, New York, NY 10036-6797. (R)

357. *Apple, Inc. v. Fintiv, Inc.*, IPR2023-00398, IPR2023-00399, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter-partes reviews of U.S. Patents 10,438,196 and 9,208,488, respectively, relating to an infrastructure supporting multiple mobile wallet providers. Result: no challenged claims unpatentable in either case. Contact: Marcus Barber, Esq., Kasowitz Benson Torres LLP, 333 Twin Dolphin Drive, Suite 200, Redwood Shores, CA 94065. (D,R)

358. *IOENGINE, LLC v. Roku, Inc.*, Case 6:21-cv-01296-ADA (W.D. Texas). Served as an expert for Patent Owner in a case alleging infringement of U.S. Patents 10,447,819 and 10,972,584, relating to a secure portable device implementing a plug-n-play VPN. Result: jury verdict of non-infringement, now subject to post-trial motions. Contact: Greg Chuebon, Esq., Dechert LLP, Three Bryant Park, 1095 Avenue of the Americas, New York, NY 10036-6797. (D,R,T)

359. *United States v. David Gerald Minkkinen et al.*, Case 2:22-cr-00613 (S.D. W.Va). Serving as an expert for defendant Minkkinen in a case alleging theft of trade secrets relating to statewide unemployment insurance systems. Contact: Mike Nogay, Esq., Sellitti, Nogay & Nogay, PLLC, 3125 Pennsylvania Avenue, Weirton, West Virginia 26062. (R)

360. *Hum Industrial Technology, Inc. v. Amsted Rail Company, Inc.*, IPR2023-00538, IPR2023-00539, IPR2023-00540, Patent Trial and Appeal Board. Served as an expert for

Patent Owner in inter-partes reviews of U.S. Patents 9,365,223, 9,981,673, and 10,137,915, repectively, relating to systems for detecting anomalies in train consists and railcars. Results: in 538, some claims found unpatenable. In 539, all challenged claims unpatentable. In 540, all challenged claims unpatentable. All decision on appeal to the Federal Circuit. Contact: Ryan N. Miller, Esq., Fox Rothschild LLP, 2000 Market Street, 20th Floor, Philadelphia, PA 19103-3222. (R)

361. *Entain Corporate Services Ltd. et al. v. GAN (UK) Limited*, IPR2023-00027, Patent Trial and Appeal Board. Served as an expert for Patent Owner in an inter-partes review of U.S. Patent 8,821,296, relating to casino management systems for linking online and offline gaming accounts. Result: all challenged claims unpatentable. Contact: Jarrad M. Gunther, Esq., Duane Morris LLP, 30 South 17th Street, Philadelphia, PA 19103-4196. (D,R)

362. *Ex Parte Reexamination of U.S. Patent 8,762,498*, Control No. 90/015,238. Served as an expert for Unified Patents in a reexamination of U.S. Patent 8,762,498, drawn to Internet communications through a virtual domain. All reexamined claims cancelled. Contact: Michael H. Jones. Esq., Rothwell, Figg, Ernst & Manbeck, P.C., 901 New York Avenue, N.W., Suite 900 East, Washington. DC 20001. (R)

363. *FaceTec, Inc. v. iProov Ltd.*, Case 2:21-cv-02252-ART-BNW (D. Nevada). Serving as an expert for Defendant/Counterclaim Plaintiff in an action alleging infringement of U.S. Patents 10,776,471 and 11,157,606 by iProov, relating to authentication through facial recognition, and infringement of U.S. Patent 9,621,548 by FaceTec, relating to online identity validation. Contact: Ryan E. Hatch, Esq., Hatch Law, P.C., 13323 Washington Blvd., Suite 100, Los Angeles, CA 90066.

364. *Lexos Media IP, LLC v. Abt Electronics, Inc.*, Case 1:22-cv-04878 (N.D. Ill.). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 5,995,102, 6,118,449, and 7,975,241, relating to modifying a cursor image. Case has settled. Contact: Ken P. Kula, Esq., Buether Joe & Counselors, LLC, 1700 Pacific Avenue, Suite 4750 Dallas, Texas 75201.

365. *Lexos Media IP, LLC v. Amazon.com, Inc.*, Case 2:22-cv-00169-JRG (E.D. Texas), consolidated with *Lexos Media IP, LLC v. Target Corporation*, Case 2:22-cv-00175-JRG (E.D. Texas) and *Lexos Media IP, LLC v. Office Depot*, Case 2:22-cv-00273-JRG (E.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 5,995,102, 6,118,449, and 7,975,241, relating to modifying a cursor image. Case has settled as to all defendants. Contact: Ken P. Kula, Esq., Buether Joe & Counselors, LLC, 1700 Pacific Avenue, Suite 4750 Dallas, Texas 75201. (D,R)

366. *Lexos Media IP, LLC v. MSC Industrial Direct Co., Inc.*, Case 3:22-cv-01736-X (N.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 5,995,102, 6,118,449, and 7,975,241, relating to modifying a cursor image. Case has settled. Contact: Ken P. Kula, Esq., Buether Joe & Counselors, LLC, 1700 Pacific Avenue, Suite 4750 Dallas, Texas 75201.

367. *Lexos Media IP, LLC v. Nike, Inc.*, Case 2:22-cv-00311-JRG (E.D. Texas), consolidated with *Lexos Media IP, LLC v. Walmart, Inc.*, Case 2:22-cv-00175-JRG (E.D. Texas), *Lexos Media IP, LLC v. Ulta Beauty, Inc.*, 2:22-cv-00292-JRG (E.D. Texas), *Lexos Media IP, LLC v. Northern Tool and Equipment, Inc.*, 2:22-cv-00355-JRG (E.D. Texas), *Lexos Media IP, LLC v. The Gap, Inc.*, 2:22-cv-00299-JRG (E.D. Texas), and *Lexos Media IP, LLC v. CDW LLC*, 2:22-cv-00275-JRG (E.D. Texas). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 5,995,102, 6,118,449, and 7,975,241, relating to modifying a cursor image. Case has settled as to all defendants. Contact: Ken P. Kula, Esq., Buether Joe & Counselors, LLC, 1700 Pacific Avenue, Suite 4750 Dallas, Texas 75201. (D,R)

368. *Lexos Media IP, LLC v. Overstock.Com, Inc.*, Case 2:22-cv-02324-JAR-ADM (D. Kan.). Served as an expert for Plaintiff in an action alleging infringement of U.S. Patents 5,995,102, 6,118,449, and 7,975,241, relating to modifying a cursor image. Contact: Ken P. Kula, Esq., Buether Joe & Counselors, LLC, 1700 Pacific Avenue, Suite 4750 Dallas, Texas 75201.

369. *CosmoKey Solutions GmbH & Co. KG v. Duo Security, Inc.*, 1:18-cv-1477 (D. Del.). Served as an expert for plaintiff in a case alleging infringement of U.S. Patent 9,246,903, relating to online multi-factor authentication. A jury found the patent not infringed under 35 U.S.C. § 273 and invalid. Contact: Scott Weingaertner, Esq., Goodwin Procter LLP, The New York Times Building, 620 Eighth Avenue, New York, NY 10018. (D,R,T)

370. *United Services Automobile Association v. Truist Bank*, 2:22-cv-00291-JRG-RSP (E.D. Texas). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 9,818,090, 10,482,432, 11,182,753, 11,544,944, and 11,625,770, relating to remote check deposit. Defendant has counterclaimed, asserting infringement of U.S. Patents 7,336,813, 7,519,214, relating to determining skew in digital images, U.S. Patents 7,283,644, 7,899,210, and 9.760,797, relating to an image-based security system, and U.S. Patent 8,136,721, relating to improvements in optical character recognition. Case has settled. Contact: Anthony Rowles, Esq., Irell & Manella LLP, 1800 Avenue of the Stars, Los Angeles, CA 90067-4276.

371. *RFCyber Corp. v. Visa U.S.A., Inc.*, 6:22-cv-00697-ADA (W.D. Texas). Served as an expert for Visa in a case alleging infringement of U.S. Patents 8,118,218, 8,448,855, 9,189,787, and 9,240,009, relating to mobile payment devices and funding electronic purses. Case has settled. Contact: James C. Yoon, Esq., Wilson Sonsini Goodrich & Rosati P.C., 650 Page Mill Road, Palo Alto, CA 94304-1050. (R)

372. *SitePro, Inc. v. Waterbridge Resources, LLC et al.*, 6:23-cv-00115-ADA-DTG (W.D. Texas). Served as an expert for SitePro in a case alleging infringement of U.S. Patents 8,649,909, 9,342,078, 9,898,014, 10,488,871, 11,175,680, and 11,294,403, relating to remote control of fluid-handling devices. Case has settled. Contact: M. Craig Tyler, Esq., Perkins Coie LLP, 405 Colorado Street, Suite 1700, Austin, TX 78701-0089.

373. *Diogenes Limited and Colossus (IOM) Limited v. DraftKings Inc.*, 1:21-cv-01695-MN-CJB (D. Del.). Served as an expert for DraftKings in a case alleging infringement of U.S. Patents 8,721,439, 9,117,341, 9,275,516, 9,424,716, 9,704,338, 10,970,969, 10,997,822,and 11,200,779, relating to wagering methods, in particular, offering to cash out a wager on an event before the

event has terminated. Infringement allegations were dropped at to the first seven patents; the '779 patent was found invalid in IPR2023-00268. Case has settled. Contact: Jamie R. Lynn, Esq., Baker Botts L.L.P., 700 K Street N.W., Washington, DC 20001.

374. *Truist Bank v. United Services Automobile Association*, IPR2023-00183 (PTAB). Served as an expert for Patent Owner in an inter-partes review of U.S. Patent 11,182,753, relating to remote check deposit. Case has settled. Contact: Anthony Rowles, Esq., Irell & Manella LLP, 1800 Avenue of the Stars, Los Angeles, CA 90067-4276. (R)

375. *Redmon Jeang LLC v. TurnSignl, Inc. et al.*, 0:22-cv-02749-NEB-LIB (D. Minn.). Served as an expert for defendant in a case alleging infringement of U.S. Patents 11,443,395, 11,494,861, and 11,494,862, relating to systems and methods for contacting an attorney during a traffic stop. Defendant won a judgment on the pleadings that the claims were patent-ineligible. Contact: Mark Nelson, Esq., Barnes & Thornburg LLP, 2121 N. Pearl Street, Suite 700, Dallas, TX 75201.

376. *TurnSignl, Inc. et al. v. Redmon Jeang LLC*, IPR2024-00103, IPR2024-00104, IPR2024-00105, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter-partes reviews of U.S. Patents 11,443,395, 11,494,861, and 11,494,862, repectively, relating to systems and methods for contacting an attorney during a traffic stop. Petitions were withdrawn before institution based on the outcome of case 375, above. Contact: Mark Nelson, Esq., Barnes & Thornburg LLP, 2121 N. Pearl Street, Suite 700, Dallas, TX 75201. (R)

377. *MessageBird, B.V. et al. v. Validity, Inc.* , 1:22-cv-12116-NMG (D. Mass.). Served as an expert for defendant in a case alleging infringement of U.S. Patent 8,719,356, relating to monitoring deliverability of electronic mail. Case has settled. Contact: Jennifer Hayes, Esq., Nixon Peabody LLP, 305 S. Grand Avenue, Suite 4100, Los Angeles, CA 90071-3151.

378. *Cardware, Inc. v. Samsung Electronics, Co. Ltd. et al*, 2:22-cv-00141-JRG-RSP (E.D. Texas). Served as an expert for Defendants in a case alleging infringement of U.S. Patents 10,339,520, 10,628,820, 10,810,579, 11,176,538, and 11,328,286, relating to a device for simulating a magnetic-stripe credit card. Case has settled. Contact: Nicholas Stevens, Esq., Fish & Richardson, 60 South Sixth Street, Suite 3200, Minneapolis, MN 55402.

379. *Cortex MCP, Inc. v. VISA Inc.*, 5:23-cv-05720-FB (N.D. Cal.). Serving as an expert for defendant in an action alleging infringement of U.S. Patents 9,251,531, 9,954,854, 10,749,859, and 11,329,973, all relating to tokenization methods for securing electronic credentials, e.g., in electronic payment systems. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304.

380. *VISA Inc. v. Cortex MCP, Inc.*, IPR2024-00486, IPR2024-00487, IPR2024-00488, IPR2024-00489, and IPR2024-00490, Patent Trial and Appeal Board. Served as an expert for Petitioner in inter partes reviews of U.S. Patents 9,251,531 (IPR2024-00486, IPR2024-00487), 9,954,854 (IPR2024-00488), 10,749,859 (IPR2024-00489), and 11,329,973 (IPR2024-00490), all relating to tokenization methods for securing electronic credentials, e.g., in electronic payment systems. Outcomes: in -00486, Claims 1, 3–6, 8–18 of 1-20 unpatentable; in -00487,

all claims unpatentable; in -00488, no claims unpatentable; in -00489, claims 1, 3–9, 11–18, and 20 of 21 unpatentable; in -00490, claims 1, 3–8, 10–16 of 17 unpatentable. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304.

381. *Snap Inc. v. Playvuu, Inc.*, IPR2023-00848 (PTAB). Served as an expert for Patent Owner in an inter-partes review of U.S. Patent 10,931,911, relating to compositing multimedia content. Patent Owner requested adverse judgment. Contact: David Tsai, Esq., Pillsbury Winthrop Shaw Pittman LLP, Four Embarcadero Center, 22nd Floor San Francisco, CA 94111-5998. (R)

382. *Zigen, Inc. et al. v. Cabin Management Solutions et al.*, 4-23-cv-00210 (S.D. Texas). Serving as an expert for defendant in an action alleging misappropriation of trade secrets relating to customized aircraft audiovisual systems. Contact: Peter Vogel, Esq., VogelITLaw, 5925 Forest Lane, Suite 136, Dallas, TX 75230. (R,T)

383. *The Chosen, Inc. v. Angel Studios, Inc. v. Come and See Foundation, Inc.*, AAA 01-23-001-5829. Served as an expert for interested party Educational Media Foundation in an action alleging software copyright infringement. Contact: Thor Y. Urness, Esq., Bradley Arant Boult Cummings LLP, Roundabout Plaza, 1600 Division Street, Suite 700, Nashville, TN 37203.

384. *AirSlate, Inc. v. Inkit, Inc.*, 1:23-cv-01307-RGA-SRF (D. Del.). Served as an expert for defendant in a case alleging infringement of U.S. Patent 11,449,815, relating to automating document workflows. Result: Plaintiff dismissed the case before trial. Contact: John M. Hintz, Esq., Frost Brown Todd LLP, 205 E. 42nd Street, Suite 1900, New York, NY 10176. (R)

385. *CSC Serviceworks, Inc.. v. PayRange, Inc.*, IPR2023-01186, Patent Trial and Appeal Board. Served as an expert for patent owner in a post-grant review of U.S. Patent 8,856,045, relating to methods for authorizing payments wirelessly at vending machines. Case has settled. Contact: Matthew Argenti, Esq., Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, CA 94304. (R)

386. *Mynette Technologies, Inc. et al. v. United States et al.*, 1:16-cv-01647-RTH (Fed. Claims). Served as an expert for plaintiff in a case alleging infringement of U.S. Patents 7,719,425, 7,924,156, 9,524,458, and 9,569,777, relating to the use of NFC chips in passports. Case has settled. Contact: Robert Yorio, Esq., Carr & Ferrell LLP, 120 Constitution Drive, Menlo Park, CA 94025. (R)

387. *Ex Parte Reexamination of U.S. Patents RE46,386 and 8,924,502*, Control Nos. 90/019,142 and 90/019,143. Served as an expert for patent owner Aqua Connect in a reexamination of U.S. Patents RE46,386 and 8,924,502, relating to updating a user session in a Mach-derived system environment. All reexamined claims affirmed. Contact: Ryan E. Hatch, Esq., Hatch Law, P.C., 13323 Washington Blvd., Suite 100, Los Angeles, CA 90066. (R)

388. *Touchstream Technologies, Inc. v. Charter Communications, Inc. et al.*, 2:23-cv-00059-JRG (E.D. Texas). Served as an expert for defendant in a case alleging infringement of U.S.

Patents 8,356,251, 11,048,751, and 11,086,934, relating to controlling a television display from a mobile device. Dr. Shamos testified at a jury trial on noninfringement and invalidity. Result: jury verdict of noninfringement. In a 38-page opinion denying Touchstream's motion for a new trial, Judge Gilstrap referred to Dr. Shamos's' testimony 61 times. Contact: Dina M. Hayes, Esq., Arnold & Porter Kaye Scholer LLP, 70 West Madison Street, Suite 4200, Chicago, IL 60602-4231. (D,R,T)

389. *Autoscribe Corporation v. Repay Holdings Corporation et al.*, 1:24-cv-04282-SCJ (N.D. Georgia). Served as an expert for Repay defendants in a case alleging infringement of U.S. Patent 11,620,621, relating to tokenization in an electronic payment system. Case has settled as to the Repay defendants. Contact: David Harper, Esq., Haynes and Boone, LLP, 2801 N. Harwood Street, Suite 2300 Dallas, TX 75201. (R)

390. *SportsCastr Inc. d/b/a PANDA Interactive v. Genius Sports Ltd.*, 2:23-cv-0471-JRG (E.D. Texas). Serving as an expert for plaintiff in a case alleging infringement of U.S. Patents 10,425,697, 10,805,687, 11,039,218, and 11,871,088, all relating to synchonizing livestreamed video with related event information. Contact: Patrick Lafferty, Esq., King & Spalding LLP, 1700 Pennsylvania Avenue, NW, Suite 900, Washington, D.C. 20006. (R)

391. *SportsCastr Inc. d/b/a PANDA Interactive v. Sportradar Group AG*, 2:23-cv-0472-JRG (E.D. Texas). Serving as an expert for plaintiff in a case alleging infringement of U.S. Patents 10,425,697, 10,805,687, 11,039,218, and 11,871,088, all relating to synchonizing livestreamed video with related event information. Contact: Patrick Lafferty, Esq., King & Spalding LLP, 1700 Pennsylvania Avenue, NW, Suite 900, Washington, D.C. 20006.

392. *Adeia Guides, Inc. v. Videotron Ltd.*, T-841-21 (Fed. Ct. of Canada). Serving as an expert for plaintiff in a case alleging infringement of Canadian Patents 2,553,922, relating to providing a streaming version of a broadcast television program, 2,635,571, relating to delivering television program based on the receiver's display capabilities, 2,775,674, relating to selectively disabling trick play functions, and 2,967,187, relating to monitoring a user's viewing progress with a serial television program. Contact: Daniel Cappe, Esq., Goodmans LLP, Bay Adelaide Centre - West Tower, 333 Bay Street, Suite 3400, Toronto, ON M5H 2S7.

393. *Ex Parte Reexamination of U.S. Patents 10,447,819 and 10,972,584*, Control Nos. 90/019,292 and 90/019,293. Served as an expert for patent owner IOENGINE, LLC in reexaminations of U.S. Patents 10,447,819 and 10,972,584, relating to relating to a secure portable device implementing a plug-n-play VPN. Contact: Greg Chuebon, Esq., Dechert LLP, Three Bryant Park, 1095 Avenue of the Americas, New York, NY 10036-6797. (R)

394. *Thentia Corporation v. Julian Cardarelli, GovCore Canada, Inc., et al.*, CV-24-00726669-0000 (Ontario Super. Ct.). Served as an expert for plaintiff in a case alleging misappropriation of trade secrets relating to a system for automating regulatory agency activities. Contact: Dena Varah, Esq., Lenczner Slaght LLP, 130 Adelaide St. W., Suite 2600, Toronto, ON, Canada M5H 3P5. (R)

395. *Ex Parte Reexamination of U.S. Patent 8,407,722*, Control No. 90/019,662. Served as an expert for Unified Patents in a reexamination of U.S. Patent 8,407,722, drawn to an Internet routing architecture. Contact: Jessica Marks, Esq., Unified Patents, 4445 Willard Avenue, Suite 600, Chevy Chase, MD 20815. (R)

396. *Monticello Enterprises LLC. v. Macy's Inc., et al.*, 6:23-00753-XR (W.D. Texas) (lead case), consolidated with *Monticello Enterprises LLC. v. Petco Health & Wellness Co, Inc. et al.*, 6:23-cv-00761-XR and *Monticello Enterprises LLC. v. Starbucks Corporation*, 6:23-cv-00763. Serving as an expert for defendants in a case alleging infringement of U.S. Patents 9,824,408, 10,121,186, 10,643,266, 11,004,139, 11,461,828, and 11,468,497, relating to on-line, wireless, and in-app payment systems. Contact: Bryan P. Clark, Esq., The Webb Law Firm, One Gateway Center, 420 Ft. Duquesne Blvd., Suite 1200, Pittsburgh, PA 15222. (R)

397. *Ex Parte Reexamination of U.S. Patent 8,370,457*. Served as an expert for Unified Patents in a reexamination of U.S. Patent 8,370,457, drawn to network communication through a virtual domain. Contact: Stephen A. Courtiaus, Esq., Slater Matsil, LLP, 17304 Preston Rd., Suite 900, Dallas, TX 75252. (R)

398. *Hanshow Technology Co., Ltd. v. SES-Imagotag SA et al.*, 2:23-cv-00174-RWS-RSP (E.D. Texas). Served as an expert for defendants in a case alleging infringement of U.S. Patents 8,346,210, 9,641,994, and 11,540,216, relating to managing services through the use of RFID and NFC tags. Case has settled. Contact: Matt Acosta, Esq., Platt Richmond PLLC, 101 N. Riverfront Blvd., Suite 150, Dallas, TX 75207. (D,R)

399. *NEC Corporation. v. Becker Professional Development Corporation*, 4:24-cv-00647-O (N.D. Texas). Served as an expert for defendant in a case alleging infringement of U.S. Patents 8,595,779, relating to pausing live video for time-shifted viewing, and 8,909,809, relating to adaptive bitrate streaming. Case has settled. Contact: Jacob Zambrzycki, Esq., Moore & VanAllen, 100 N. Tryon Street., Suite 4700, Charlotte, NC 28202-4003. (D,R)

400. *Hanshow Technology Co., Ltd. v. SES-Imagotag SA et al.*, 2:23-cv-00617-RWS-RSP (E.D. Texas). Served as an expert for defendants in a case alleging infringement of U.S. Patents 10,701,321, relating to analysis of images in video surveillance systems, and 11,087,272, relating to identifying and counting items on store shelves through robotic image capture. Case has settled. Contact: Matt Acosta, Esq., Platt Richmond PLLC, 101 N. Riverfront Blvd., Suite 150, Dallas, TX 75207. (R)

401. *Caselas, LLC v. Capital One, NA*, 6:22-cv-0293-ADA (W.D. Texas) and *Caselas, LLC v. Wells Fargo Bank, NA*, 6:22-cv-0295-ADA (W.D. Texas). Served as an expert for defendants in a case alleging infringement of U.S. Patents 7,529,698, 7,661,585, 9,117,206, 9,117,230, and 9,715,691, all relating to providing information about charge-backs in credit reports. Result: all asserted claims found patent-ineligible in 1:21-cv-03480-VMC (N.D. Ga.), affirmed by the Federal Circuit. Contact: Robert A, Angle, Esq., Troutman Pepper Locke LLP, Troutman Pepper Building, 1001 Haxall Point, 15th Floor Richmond, VA 23219.

402. *American Airlines, Inc. and Southwest Airlines Co. v. Intellectual Ventures I LLC*, IPR2025-00785, IPR2025-01511, Patent Trial and Appeal Board. Served as an expert for Petitioners in inter partes reviews of U.S. Patents 7,257,582 and 7,712,080, relating to methods of parallel processing. Institution denied in 00785 and discretionarily denied in 01511. Contact: John Campbell, Esq., McKool Smith Hennigan, 303 Colorado Street, Suite 2100, Austin, TX 78701. (R)

403. *Mudflap, Inc. v. Sky Capital Group, LLC et al.*, (Sup. Ct. Santa Clara Cty., CA), *Mudflap, Inc. v. Patterson et al.*, JAMS Case No. 5100001313, and *Mudflap, Inc. v. Patterson et al.*, AAA Case No. 01-23-0002-8859. Served as an expert for Complainant in arbitrations concerning misappropriation of trade secrets concerning a closed-loop system for truck fuel purchases. Cases were resolved favorbly to Mudflap. Contact: Kevin O'Brien, Esq., Alto Litigation, 4 Embarcadero Center, San Francisco, CA 94111.

404. *Apple, Inc. v. Varia Holdings LLC*, IPR2024-01362, -01363, -01364, Patent Trial and Appeal Board. Served as an expert for Patent Owner in inter partes reviews of, respectively, U.S. Patents 8,381,974, 9,405,947, and 8,127,984, relating to methods of simulating NFC signals. All challenged claims found unpatentable in each IPR. Contact: Timothy Gilman, Esq., Kasowitz LLP, 1633 Broadway, New York, NY 10019. (D,R)

405. *Election Systems & Software, LLC v. Hart InterCivic, Inc.*, PGR2025-00066, Patent Trial and Appeal Board. Served as an expert for petitioner in a post-grant review of U.S. Patent 12,125,319, relating to conversion of printed ballots into cast vote records by optical character recognition. Petition was discretionarily denied. Contact: Robert M. Evans, Jr., Esq., Lewis Rice LLC, 600 Washington Avenue, Suite 2500, St. Louis, MO 63101. (R)

406. *Google Inc. v. Cardware, Inc.*, IPR2025-01344 and -01361, Patent Trial and Appeal Board. Served as an expert for petitioner in *inter partes* reviews of U.S. Patents 10,810,579 and 11,620,634, respectively, relating to a tokenizing electronic payment device. Both petitions were discretionarily denied. Contact: Daniel Zeilberger, Esq., Paul Hastings, LLP., 2050 M Street NW, Washington, DC 20036. (R)

407. *Truesight Communications, LLC v. Lenovo Group Limited, et al.*, 2:24-cv-00031-JRG (E.D. Texas). Served as an expert for defendants in a case alleging infringement of U.S. Patents 8,745,749, relating to virtualization of an SD card, and 8,898,803, relating to a kiosk delivery system for electronic content. Case has settled. Contact: Amanda N. Brouillette, Esq., Kilpatrick Townsend & Stockton, LLP, Suite 2100, 1100 Peachtree Street NE, Atlanta, GA 30309-4538. (D,R)

408. *Google Inc. v. Cardware, Inc.*, IPR2025-01513 and -01514, Patent Trial and Appeal Board. Served as an expert for petitioner in *inter partes* reviews of U.S. Patents 10,339,520 and 11,765,538, respectively, relating to device that emulates a a credit card. Both petitions were discretionarily denied. Contact: Daniel Zeilberger, Esq., Paul Hastings, LLP., 2050 M Street NW, Washington, DC 20036. (R)

409. *Cardtek International, Ltd. et al. v. Chick-Fil-A, Inc.*, 2:25-cv-00091-JRG-RSP (E.D. Texas). Served as an expert for defendant in a case alleging infringement of U.S. Patents 7,039,593, 8,600,770, and 10,628,818, relating to dividing a payment amount due among multiple electronic payment sources. Case has settled. Contact: Ryan K. Walsh, Esq., Jones Day, 1221 Peachtree St. N.E., Suite 400, Atlanta, GA 30361.

410. *Intellectual Ventures I LLC et al. v. American Airlines, Inc.*, 4:24-cv-00980-ALM (E.D. Texas). Serving as an expert for Defendant in a case alleging infringement of U.S. Patent 7,712,080, relating to methods of parallel processing. Contact: Alan Block, Esq., McKool Smith Hennigan, One California Plaza, 300 South Grand Avenue, Suite 2900, Los Angeles, CA 90071. (R)

411. *Okta, Inc. et al. v. Thales DIS France SAS*, IPR2026-00327, Patent Trial and Appeal Board. Serving as an expert for Petitioner in an inter partes review of U.S. Patent 12,254,103, relating to managing secuirty policies for an electronic wallet in a mobile device. Contact: Rick Besenius, Esq., Fish & Richardson PC, 60 South 6th Street, Suite 3200, Minneapolis, MN 55402. (R)

412. *IntelliSafe Analytics, LLC v. Nicholas Anthony et al.*, GD-26-000318 (Allegheny Cnty. PA C.C.P.). Serving as an expert for Plaintiff in a case alleging breach of a software and firmware development contract. Contact: Matthew D. Gailey, Esq., Cozza Law Group, 400 Holiday Drive, Suite 210 Pittsburgh, PA 15220. (R,T)

413. *Yieldmo, Inc. v. TEADS, Inc. et al.*, 1:25-cv-737-PAE (S.D.N.Y). Served as an expert for Plaintiff in a case alleging infringement of U.S. Patents 10,832,729, 10,832,780, 11,604,918, and 12,271,683, relating to methods for serving interactive content over the Internet. The asserted claims were found invalid under 35 U.S.C. § 101. Contact: C. Graham Gerst, Esq., Global IP Law Group, LLC, 55 W. Monroe Street, Suite 3400, Chicago, IL 60603.

414. *Schoeneckers, Inc. v. ITA Group, Inc. et al.*, 4:25-cv-00002-HCA (S.D. Iowa). Serving as an expert for Defendants in a case alleging infringement of U.S. Patents 8,768,764, 9,779,421, and 11,501,339, relating to methods for embedding a portable incentive application on a website. Contact: Nicholas F. Miller, Esq., Brick Gentry, P.C., 6701 Westown Pkwy # 100, West Des Moines, IA 50266. (R)

415. *Shirokov and Firebird GT Limited v. Ardatovskiy et al.*, 25-cv-02701-EMC (N.D. Cal.). Serving as an expert for Plaintiffs in a case alleging infringement of copyrights in a computer system for selling rail tickets. Contact: Thomas E. Bejin, Esq, Taft Stettinius & Hollister LLP., 27777 Franklin Road, Suite 2500, Southfield, MI 48034. (R)

416. *MachiningCloud, Inc. et al. v. Kennametal Inc.*, 2:25-cv-02158-SB-AJR and 2:25-cv-10745-SB-AJR (C.D. Cal.). Serving as an expert for Defendants in a case relating to U.S. Patents 9,817,387, 10,754,322, and 10,430,675, relating to methods for configuring machine tool assemblies. Contact: Neil Elan, Esq., Stubbs, Alderton & Markiles, LLP, 2801 N. Harwood Street, Suite 2300 Dallas, TX 75201. (D,R)

Legislative Testimony

Testimony before the Texas Legislature concerning electronic voting, Austin, Texas, 1987. Result: passage of the Texas Electronic Voting Law.

Invited testimony before the British House of Lords, Subcommittee B of the European Union Committee, April 20, 2000. Subject: European regulation of eCommerce.

Testimony before the Pennsylvania Legislature State Government Committee concerning electronic voting, Philadelphia, March 10, 2004.

Testimony before the United States Commission on Civil Rights concerning electronic voting, Washington, DC, April 9, 2004.

Testimony before the U.S. House of Representatives Committee on Science concerning voting system certification, Washington, DC, June 24, 2004.

Testimony before the U.S. House of Representatives Committee on House Administration concerning voting system security, Washington, DC, July 7, 2004.

Testimony before the U.S. House of Representatives Committee on Government Reform concerning electronic voting technology, Washington, DC, July 20, 2004.

Testimony on DREs and paper trails before the Virginia Legislature Study Commission on Voting System Certification and Security, Richmond, VA, August 16, 2004.

Testimony before the Election Assistance Commission, Technical Guidelines Development Committee, Subcommittee on Computer Security and Transparency, Gaithersburg, MD, Sept. 20, 2004.

Testimony before the House Ways and Means Committee of the Maryland General Assembly on voting machine paper trails, Annapolis, MD, December 7, 2004.

Testimony before the U.S. House of Representatives Committee on House Administration concerning paper trails, Washington, DC, September 28, 2006.

Testimony before the U.S. Election Assistance Commission concerning the Voting System Testing and Certification Program, Washington, DC, October 26, 2006.

Testimony before the Georgia State Board of Elections, Powder Springs, GA, December 21, 2007.

Testimony before the Maryland House of Delegates Ways and Means Committee, Annapolis, MD, January 18, 2007.

Testimony before the U.S. Senate Committee on Rules and Administration on the Ballot Integrity Act of 2007, Washington, DC, July 25, 2007.

Testimony before the Pennsylvania Senate State Government Committee, March 18, 2024.

Arbitration

Dr. Shamos has served as an arbitrator in computer-related disputes for the American Arbitration Association.

Electronic Voting

Dr. Shamos has served as an examiner of electronic voting systems and consultant on electronic voting.

Member, Sarasota Source Code Audit Task Force, Florida Secretary of State (2007-2008)

Consultant to the Pennsylvania Secretary of the Commonwealth (2004-).

Consultant to the Massachusetts Secretary of the Commonwealth (2006).

Project SERVE Security Peer Review Group (2003).

Attorney General's Designee for electronic voting examinations, State of Texas (1987-2000).

Statutory Examiner for electronic voting, Commonwealth of Pennsylvania (1980-1996).

Consultant to Montgomery County, Pennsylvania (1996).

Consultant to the Secretary of State of Nevada (1996).

Consultant to the Delaware Legislature (1989).

Consultant to the Secretary of State of West Virginia (1984).

Business Experience

President, Expert Engagements LLC, expert witness firm (2003-present).

President, Unus, Inc., database publishing software (formerly Unilogic, Ltd.) (1990-1992)

President, Notifax Corporation (1989-1994). Automated notification by facsimile.

President, Lexeme Corporation (1984-87), software language translation products.

Managing Partner, Shamos and Tchen (1978-82), computer consulting firm.

Supervisory Programmer, National Cancer Institute (1970-72), while a commissioned officer in the United States Public Health Service (O-3).

Associate Engineer, IBM Corporation (1968-70) (Components Division), design of manufacturing information systems.

Consulting

Morgan Stanley Dean Witter (2000-2002) (now Morgan Stanley).

McKinsey & Co. (1999-2001).

Bell Atlantic Corporation (1999-2008) (now Verizon).

LG-CNS, South Korea (2002-2004). Project to automate the Korean court system.

Directorships

Unilogic, Ltd. (1979–87) (later Unus, Inc. d/b/a Cygnet Publishing Technologies, 1987-2013). Database publishing software.

The Billiard Archive (1983–), also Curator. Historical nonprofit foundation.

Lexeme Corporation (1984-1987). Computer source language translation.

Notifax Corporation (1989-1994)

Insurance Technology Corporation (1992–1995). IT consulting for the insurance industry.

Personal Data

Date of birth: April 21, 1947.

Married to Julie Shamos (formerly Julie Van Allen), August 12, 1973.

Children: Josselyn (born May 20, 1982), Alexander (born August 3, 1984).

Grandchildren: Harlow Elizabeth Crane (born April 9, 2010), Bishop Moses Crane (born July 13, 2012), Amelia Eleanor Shamos (born April 17. 2019), Sophia Anastasia Shamos (born March 14, 2021)

Military Status: Veteran (Commissioned Officer, U.S. Public Health Service, 1970-72).

Contact Information

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Email: shamos@cs.cmu.edu

Publications

Google Scholar citations. Erdös number = 3: Erdös -> {Daniel Kleitman, Patrick O'Neill, Joel Spencer} -> Albert Meyer -> Shamos

SCIENCE

Books

1. *Computational Geometry: An Introduction*, with F. P. Preparata. Springer-Verlag (1985, revised ed., 1991), 390 pp. ISBN 0387961313. According to CiteSeer in 2012, this is the 93rd most cited work in the field of computer science.

2. *Вычислительная геометрия: введение*. Russian translation of "Computational Geometry: An Introduction." Moscow: Mir Publishers (1989). ISBN 5030010416.

3. 计算几何导论 (Jìsuàn jǐhé dǎolùn) Chinese translation by Zhuang Xingu of "Computational Geometry: An Introduction." Science Press (1990). ISBN 9787030018366.

4. *Keisan kikagaku nyumon*. Japanese translation by T. Asano and T. Asano of *Computational Geometry: An Introduction*, with F. P. Preparata. Soken Shuppan (Jul. 1992). ISBN 4795263213.

5. *Handbook of Academic Titles*. 193 pp. (Jan. 2011). An encyclopedia of various academic designations used at over 1000 colleges and universities in the United States.

6. *Geometria obliczeniowa. Wprowadzenie*. Polish translation of "Computational Geometry: An Introduction." Warsaw: Helion (2003) 392 pp. ISBN 83-7361-098-7.

7. *Shamos's Catalog of the Real Numbers*. A list, patterned after Sloane & Plouffe, The Encyclopedia of Integer Sequences, Academic Press (1995). Over 10,000 interesting real numbers arranging in lexical order by decimal expansion, with accompanying formulas.

Book Chapters

1. "Privacy and Public Records." Chapter 16 in *Personal Information Management*, Jones & Teevan, eds., Univ. of Washington Press (2007), ISBN978-0-295-98737-8.

Articles

1. "On the Piezoelectric Effect in Bone," with M. H. Shamos and L. S. Lavine. *Nature* **197**:81 (1963).

2. "An Absorber Theory of Acoustical Radiation," with M. A. Tavel. *Journal of the Acoustical Society of America* **54**:46–49 (1973).

3. "Problems in Computational Geometry." Unpublished book manuscript (1974, revised 1977). Distributed in photocopy.

4. "Geometric Complexity." *Proceedings of the Seventh Annual ACM Symposium on Automata and Theory of Computation* (May 1975) 224–233.

5. "Closest-point Problems," with D. J. Hoey. *Proceedings of the Sixteenth IEEE Symposium on Foundations of Computer Science* (Oct. 1975) 151–162.

6. "Divide and Conquer in Multidimensional Space," with J. L. Bentley. *Proceedings of the Eighth Annual ACM Symposium on Automata and Theory of Computing* (May 1976) 220–230.

7. "Geometric Intersection Problems," with D. J. Hoey. *Proceedings of the Seventeenth Annual IEEE Symposium on Foundations of Computer Science* (Oct. 1976) 208–215.

8. "Lower Bounds from Complex Function Theory," with G. Yuval. *Proceedings of the Seventeenth Annual IEEE Symposium on Foundations of Computer Science* (Oct. 1976) 268–273.

9. "Geometry and Statistics: Problems at the Interface." In *Algorithms and Complexity: New Directions and Recent Results*, J. F. Traub, ed., Academic Press (1976) 251–280.

10. "Divide and Conquer for Linear Expected Time," with J. L. Bentley. *Information Processing Letters* 7 (1977) 87–91.

11. "A Problem in Multivariate Statistics: Algorithm, Data Structure, and Applications," with J. L. Bentley. *Proceedings of the Fifteenth Allerton Conference on Communications, Control and Computers* (Sep. 1977) 193–201.

12. "Optimal Algorithms for Structuring Geographic Data," with J. L. Bentley. *Proceedings of the Harvard Conference on Topological Data Structures for Geographic Information Systems* (Oct. 1977) 43–51.

13. "Computational Geometry." Ph.D. Thesis, Yale University (1978). University Microfilms, Ann Arbor, MI.

14. "Time and Space," with A. R. Meyer. In *Perspectives on Computer Science*, A. K. Jones, ed. Academic Press (1978).

15. *Combinatorics on Graphs I: Graph Polynomials*. Unpublished book manuscript (1978).

16. "Robust Picture Processing Operators and Their Implementation as Circuits." *Proceedings of the Fall 1978 Workshop on Image Processing*, Carnegie Mellon University (1978).

17. "A practical system for source language translation," with T. R. Kueny and P. L. Lehman. *Proceedings of the National Conf. on Software Reuseability and Maintainability*, pp. B-1 – B-12, Washington, DC (Sep. 1986).

18. "The Early Years of Computational Geometry – A Personal Memoir." *Advances in Discrete and Computational Geometry* (B. Chazelle, J. E. Goodman, and R. Pollack, eds.), *Contemporary Mathematics*, Amer. Math. Soc., Providence (1998).

19. "A Multiparty Computation for Randomly Ordering Players and Making Random Selections," with Latanya Sweeney. Carnegie Mellon Univeristy School of Computer Science Technical Report CMU-ISRI-04-126 (July 2004)

20. *Overcounting Functions*. A systematic method of transforming certain multiple summations into single summations, with new number-theoretic results.

21. *Property Enumerators and a Partial Sum Theorem*. A new result allowing rapid symbolic evaluation of certain types of double summations.

DIGITAL LIBRARIES

Articles

1. "Machines as readers: a solution to the copyright problem." J. Zhejiang Univ. Science 6A, 11, pp. 1179-1187 (Nov. 2005).

Book Chapters

1. "The Universal Digital Library: Intelligent Agents and Information on Demand," with Raj Reddy. Chapter 6 in Emerging Communication Technologies and the Society, by N. Balakrishnan, Indian National Science Academy (2000). ISBN 81-7319-341-X.

Reports

1. "Japanese Digital Information Policy, Intellectual Property and Economics," in "Digital Information Organization in Japan," International Technology Research Institute (1999).

ELECTRONIC VOTING

Books

1. "Glossary of Electronic Voting."

Articles

2. "Voting System Certification — An Examiner's View." Invited paper presented at the Election Center Conference, Reno, Nevada (Sep. 1989).

3. "Electronic Voting — Evaluating the Threat." Proc. Third ACM Conf. on Computers, Freedom & Privacy, San Francisco, CA (Mar. 1993).

4. "Paper v. Electronic Voting Records — An Assessment." Proc. 14th ACM Conf. on Computers, Freedom & Privacy, Berkeley, CA (Apr. 2004).

5. "Evaluation of Voting Systems," with P.L. Vora, B. Adida, R. Bucholz, D. Chaum, D. Dill, D. Jefferson, D. Jones, W. Lattin, A. Rubin and M. Young, Commun. ACM 47(11):144 (2004).

6. "Voting as an Engineering Problem." *The Bridge* (publication of the National Academy of Engineering), Summer 2007, pp. 35-39.

7. "Realities of E-Voting Security," with A. Yasinsac. IEEE Security and Privacy 10:5 (Sep/Oct 2012), pp. 16-17. Also guest editor of that issue, devoted to E-voting Security.

8. "Why our voting systems are safe." Op-ed in the Pittsburgh Post-Gazette, Dec. 31, 2016.

Published Reports

9. "Software and Security Analysis of the ES&S iVotronic 8.0.1.2 Voting Machine Firmware," with Yasinsac et al., February 23, 2007. Review commissioned by the Secretary of State of Florida to investigate irregularities in the Florida Congressional District 13 election of 2006.

BILLIARDS

Books

1. *Pool.* New York: Mallard Press division of Bantam-Doubleday-Dell Promotional Book Company (Aug. 1991). 128 pp. ISBN 0-7924-5310-7.

2. *Le billard et le billard américain*. Paris: Minerva, 1992, reprinted 1997. 128 pp. Translation by Jean-Yves Prate of the author's American book, *Pool*. ISBN 2–8307–0160–7 (1992), 2-8814-3135-6 (1997).

3. *The Illustrated Encyclopedia of Billiards*. New York: Lyons & Burford (1993). 310 pp. ISBN 1-55821-219-1.

4. *Pool Snooker Carambola*. Padua: Facto Edizioni (1993). 128 pp. Italian translation of *Pool*. Translated by Elisabetta Bezzon. ISBN 88-85860-20-6. The first English-language billiard book ever published in Italian.

5. *Pool*. New York: Friedman/Fairfax (Jun. 1994). 128 pp. ISBN 1-56799-061-4. Paperback edition of the author's 1991 *Pool*.

6. *Shooting Pool: The People, the Passion, the Pulse of the Game*, with photographs by George Bennett. New York: Artisan (Jun. 1998). 144 pp. ISBN 1-885183-95-X. A photographic survey of pool in the U.S. in 1997. A Book-of-the-Month Club bonus selection (Fall, 1998).

7. *Setting the Stage for Fifty Years*. Coralville, IA: Billiard Congress of America (Jun. 1998). 88 pp. A history of the Billiard Congress of America.

8. *The New Illustrated Encyclopedia of Billiards*. New York: Lyons Press (1999). 320 pp. ISBN 1-55821-797-5. An expanded and revised edition of *The Illustrated Encyclopedia of Billiards*.

9. *The Complete Book of Billiards*. New York: Gramercy Books (2000). 306 pp. ISBN 0-517-20869-5. Reissue of author's 1993 *The Illustrated Encyclopedia of Billiards*.

In Preparation

SCIENCE

Articles

1. *A Graph-Theoretic Model of Electronic Payment Systems*, with Michael Trick.

LAW

Books

1. *A Dictionary of American Intellectual Property* (1995).

Invited Talks

ELECTRONIC COMMERCE

"The Future of eCommerce." Presentation to the Association for Corporate Growth, Pittsburgh, PA (Dec. 2001).

"The U.S., Korea and the Internet Bubble." Korea International Trade Association (Seoul, July 2003).

"Electronic Judiciary Services in the United States." Address at the Supreme Court of Korea (Dec. 2004).

"eGovernment in the United States." Public address at the University of Hong Kong (Feb. 2005).

"Global SCM as a Cross-Border eCommerce Model," Korea International Trade Association, Seoul, Korea (Mar. 2007).

"Innovate or Die." Invited talk at the Verizon Leadership Meeting, Morristown, NJ (Jun. 2007).

"A Formula for Innovation." Public address at the University of Hong Kong (Feb. 2008).

"Ask My Robot: How Computers Answer Questions." University of Hong Kong (Feb. 2013).

"How Bitcoin Works: A Non-Technical Introduction." University of Hong Kong (Mar. 2014).

"What's a Bitcoin? A Non-Technical Introduction." Carnegie Mellon University (Oct. 2014).

COMPUTER SCIENCE

"Surprises in Experimental Mathematics." Carnegie Mellon University Mathematics Seminar (Feb. 2002).

"Learning by Doing or Learning by Listening?" University of Hong Kong (Feb. 2007).

"Discoveries in Experimental Mathematics." University of Hong Kong (Feb. 2009).

"How Did It (Computational Geometry) Start?" Keynote address at the 20th Canadian Conference on Computational Geometry, Montreal, Canada (Aug. 2008).

"The Internet of Everything." University of Hong Kong (Mar. 2015).

"How Do Driverless Cars Work?" University of Hong Kong (Mar. 2017).

"How Machines Learn (Without Being Taught)." University of Hong Kong (Feb. 2018).

"What is Quantum Computing All About?" University of Hong Kong (Feb. 2019).

SCIENCE AND LAW

"Digital Property in the 21st Century." Keynote address for the Spring Meeting of the American Intellectual Property Law Association, Pittsburgh, PA (May 2000). View slides.

"Who Owns This Algorithm?" Carnegie Mellon University (Nov 1991); Microelectronics and Computer Corporation (Jan. 1992); Univ, of Texas at Austin (Jan. 1992); UCLA (Feb. 1992).

"New Computer Technology and Its Application to Worker's Compensation." Forum IV, Newport Beach, CA (Feb. 1992).

"The Office of the Future, If There Is One." 1994 IAIABC Conf., Pittsburgh, PA (Sep. 1994).

"The Fringes of Infringement." University of Texas, Austin, TX (Sep. 1995).

"The Arts and the Internet." Allegheny County Bar Association Continuing Legal Education course (June 26, 1996).

"The Universal Information Resource." Inventing the Future, Symposium in Honor of Raj Reddy's 60th Birthday, Carnegie Mellon University, Pittsburgh, PA (May 1998).

"The Universal Library." University of Texas at Austin (Sep. 1998)

"The Universal Library and Its Role in Scientific Information." Keynote address to the RNA Society symposium on Emerging Sources of RNA Information, Arlington, VA (Dec. 8, 1998).

"Digital Property in the 21st Century." Luncheon address to the American Intellectual Property Law Association, Pittsburgh, PA (May. 2000).

"Copyright Protection and Distance Learning." Hong Kong Intellectual Property Office (Feb. 2002).

"The Universal Dictionary." Address at International Institute of Information Technologies (IIIT), Hyderabad, India (Jan. 2003).

"The Million Book Projects." Public address at the University of Hong Kong (Jan. 2003).

"Mathematics and the Privacy Laws." ALADDIN Workshop on Privacy in D.A.T.A., Pittsburgh, PA (Mar. 2003).

"Machines as readers: a solution to the copyright problem." 1st Int'l Conf. on Universal Digital Library, Hangzhou, China (Nov. 2005).

"Your Books Might Cost More Now: The Role of the Expert in Software Patent Litigation." University of Hong Kong (Feb. 2006).

"University Technology Transfer: How to Fix It." Asia Conference on Technology Transfer (ACTT) 2006, Seoul, S. Korea (Mar. 2006).

"How Big a Problem is Copyright"? USAIN Conference, Cornell University, Ithaca, NY (Oct. 2006).

"Digital Ownership." 2d Intl. Conf. on Universal Digital Library, Alexandria, Egypt (Nov. 2006).

"Google and the Death of Books." University of Hong Kong (Feb. 2010).

"FaceWars." (About the lawsuit between Facebook and the Winkelvoss twins). University of Hong Kong (Feb. 2011).

"Swiping the iPhone: Billions Lost With the Stroke of a Pen." University of Hong Kong (Feb. 2012).

"Global Phone Wars: Apple v. Samsung." University of Hong Kong (Mar. 2016).

ELECTRONIC VOTING

"Voting System Certification — An Examiner's View." Election Center Conference, Reno, Nevada (Sep. 1989).

"Electronic Voting — Evaluating the Threat." Third Conf. on Computers, Freedom and Privacy, San Francisco, CA (Mar. 1993).

"What's Happing in Florida?" Carnegie Mellon University (Nov. 2001)."

"Electronic Voting: The Technology of Democracy." Hong Kong University (Feb. 2004).

"Theory v. Practice in Electronic Voting." DIMACS (Rutgers Univ., May 2004).

"HAVA: Are We Ready?" Panel at the League of Women Voters National Convention, Washington, DC (Jun. 2004).

"Testing Voting Machines." Panel at the American Enterprise Institute, Washington, DC (Jun. 2004).

"Electronic Voting: Promise and Peril." Talk at the Moritz College of Law, Ohio State University (Sep. 2004).

"Is e-voting ready for prime time: Legal and technical issues regarding the upcoming Presidential election." Panel at John Marshall Law School (Chicago, IL, Oct. 2004).

"Is Electronic Voting Reliable?" Talk to the Kiwanis Club of Dubuque, Iowa (Feb. 2005).

"The Top Ten Problems in Practical Electronic Voting." Int'l Workshop on Mathematics and Democracy, Ettore Majorana Centre, Erice, Sicily (Sept. 2005).

"Why Don't We Have Paper Trails in Pennsylvania?" Carnegie Mellon Univ. CyLab Seminar, Pittsburgh, PA (Jan 2006).

"Paper Trails and the Pennsylvania Certification Process." County Commissioners Association of Pennsylvania 2006 Spring Conference, Harrisburg, PA (Mar. 2006).

"The 2006 Elections: Are We Ready?" Panel at the American Enterprise Institute, Washington, DC (Sept. 2006).

"What's Right with Electronic Voting?" University Lecture Series, Carnegie Mellon University (Oct. 12, 2006).

"What Happened in Yesterday's Election?" Center for Research on Computation and Society, Harvard University (Nov. 8, 2006).

"What Happened in Sarasota County"? Council on Government Ethics Laws, New Orleans, LA (Dec. 6, 2006).

"What Happened to 18,000 Votes? Results of the Sarasota Source Code Audit." Carnegie Mellon University (Apr. 16, 2007).

"Opscan Voting: The Good, the Bad and the Ugly." Florida State Association of Supervisors of Elections, Destin, Florida (May 24, 2007).

"Voting Machine Fraud." University of Pittsburgh (Nov. 11, 2008)