**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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INTERACTIVE COMMUNICATIONS INTERNATIONAL, INC.,
*Petitioner,*

v.

BLACKHAWK NETWORK INC.,
*Patent Owner*

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Case IPR2024-00465
U.S. Patent No. 11,488,451

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# DECLARATION OF MICHAEL HUTTON IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 11,488,451

I, Michael Hutton, declare as follows:

1. I have been retained on behalf of Interactive Communications International, Inc. ("Petitioner") in connection with the above-captioned *inter partes* review (IPR). I have been retained to provide my opinions in support of Petitioner's Petition for *inter partes* review of U.S. Patent No. 11,488,451 (the "'451 patent"). I am being compensated for my time at the rate of $700 per hour. I have no interest in the outcome of this proceeding.

2. The statements made herein are based on my own knowledge and opinion. This Declaration represents only the opinions I have formed to date. I may consider additional documents as they become available or other documents that are necessary to form my opinions. I reserve the right to revise, supplement, or amend my opinions based on new information and on my continuing analysis.

## I. QUALIFICATIONS

3. My qualifications can be found in my Curriculum Vitae, which includes my detailed employment background and professional experience.

4. I have been involved in the development of large scale Lottery point of sale systems from the time the technology was in its infancy in the late 1970s up to and including the Internet based systems being deployed today. I have contributed to the design, development, and deployment of dozens of lottery systems for public sector gaming operators around the world.

5. In the normal course of my work in the lottery technology industry, I have been personally involved in numerous design and development activities related to the sale of lottery tickets through non-dedicated Point of Sale (POS) systems, which is well understood subject in the industry.

6. I have specific experience with the technology that is the subject of this petition, having been involved in the development of such systems in pilot projects in multiple jurisdictions.

7. For example, I designed and developed a prototype POS system for dispensing lottery products (both physical instant tickets and online games) at the retail point of sale. The system was launched in two successful pilots in Connecticut and at Logan International airport in Massachusetts.

8. Another example was when I was design lead and principal developer of a JEE based video lottery gaming server for the Chinese National Sports Lottery. The system was constructed entirely with open source technology, including an in-memory database, and supports up to 20,000 gaming machines and process over 1,500 transactions per second. The gaming system integrates with the gaming machines and the other components of the distributed architecture using RESTful APIs

9. I also designed and developed a JEE based mobile gateway for lottery ticket sales for the Shanghai Welfare Lottery. The gateway exposed a REST API

that enabled integration between Internet based mobile sales application providers and the Lottery's legacy central gaming server.

10. I was also architect/developer for the development of an advanced lottery administration system for the Pennsylvania Lottery. The system runs all typical lottery retailer "back office" administration for the lottery (IBM Websphere).

## II. LEGAL UNDERSTANDING

### A. The Person of Ordinary Skill in the Art

11. I understand that a person of ordinary skill in the relevant art (also referred to herein as "person of ordinary skill in the art") is presumed to be aware of all pertinent art, thinks along conventional wisdom in the art, and is a person of ordinary creativity—not an automaton.

12. I have been asked to consider the level of ordinary skill in the field that someone would have had at the time the claimed invention was made. In deciding the level of ordinary skill, I considered the following:

- the levels of education and experience of persons working in the field;
- the types of problems encountered in the field; and
- the sophistication of the technology.

13. A person of ordinary skill in the art ("POSITA") in January 2015 is an artisan with a working knowledge of POS activation systems and lottery systems that was gained through a mixture of training and work experience in the relevant field such as (i) having a Bachelor's degree in computer science, computer communications, electrical engineering, or equivalent degree, coupled with at least three years of work experience; (ii) having a Master's degree in computer science, computer communications, or electrical engineering, but having less work experience; or (iii) having no formal degree, but having experience in the relevant field of at least six years of work experience.

14. I understand that in the proceeding PGR2020-00084, which challenged a parent to the '451 patent, the Board adopted the above level of ordinary skill. I agree with the Board that this is the level of ordinary skill.

15. I am well-qualified to determine the level of ordinary skill in the art and am personally familiar with the technology of the '451 patent. I was a person of at least ordinary skill in the art at the time of the priority date of the '451 patent in 2015. Regardless, if I do not explicitly state that my statements below are based on this timeframe, all of my statements are to be understood as a person of ordinary skill in the art would have understood something as of the priority date of the '451 patent.

## B. Legal Principles

16. I am not a lawyer and will not provide any legal opinions. Though I am not a lawyer, I have been advised that certain legal standards are to be applied by technical experts in forming opinions regarding the meaning and validity of patent claims.

### 1. Obviousness

17. I understand that to obtain a patent, a claimed invention must have, as of the priority date, been nonobvious in view of prior art in the field. I understand that an invention is obvious when the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.

18. I understand that the ultimate conclusion of whether a claim is obvious should be based upon several factual determinations. That is, a determination of obviousness requires inquiries into: (1) the level of ordinary skill in the field; (2) the scope and content of the prior art; (3) what difference, if any, existed between the claimed invention and the prior art; and (4) any secondary evidence bearing on obviousness.

19. I understand that, in determining the level of ordinary skill in the field that someone would have had at the time the claimed invention was made, I should

consider: (1) the levels of education and experience of persons working in the field; (2) the types of problems encountered in the field; and (3) the sophistication of the technology.

20. I also understand that, in determining the scope and content of the prior art, in order to be considered as prior art, a reference must be reasonably related to the claimed invention of the patent. A reference is reasonably related if it is in the same field as the claimed invention or is from another field to which a person of ordinary skill in the field would look to solve a known problem.

21. I also understand that a patent claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was independently known in the prior art. In evaluating whether such a claim would have been obvious, I may consider whether there is a reason that would have prompted a person of ordinary skill in the field to combine the elements or concepts from the prior art in the same way as in the claimed invention.

22. I also understand that there is no single way to define the line between true inventiveness on the one hand (which is patentable) and the application of common sense and ordinary skill to solve a problem on the other hand (which is not patentable). For example, market forces or other design incentives may be what produced a change, rather than true inventiveness. I may consider whether the change was merely the predictable result of using prior art elements according to

their known functions, or whether it was the result of true inventiveness. I may also consider whether there is some teaching or suggestion in the prior art to make the modification or combination of elements claimed in the patent. I may consider whether the innovation applies a known technique that had been used to improve a similar device or method in a similar way. I may also consider whether the claimed invention would have been obvious to try, meaning that the claimed innovation was one of a relatively small number of possible approaches to the problem with a reasonable expectation of success by those skilled in the art.

23. I understand that a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art, and that obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention.

24. I also understand that a reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. Even if a reference is not found to teach away, I understand its statements regarding preferences are relevant to a finding regarding whether a skilled artisan would be motivated to combine that reference with another reference.

25. Finally, I have been advised that any obviousness rationale for modifying or combining prior art must include a showing that a person of ordinary skill would have had a reasonable expectation of success.

#### 2. My Understanding of Claim Construction Law

26. I understand that in this *inter partes* review the claims must be given interpreted under the *Phillips* standard, that is, in accordance with its plain and ordinary meaning as understood by a person of ordinary skill in the art.

## III. OVERVIEW OF THE '451 PATENT AND PRIOR ART

### A. State of the Art

27. The following section describes the state of the art for POA activation systems and online lottery systems as of January 2015. The prior art references, and the discussions of what was known to a POSA, provide the factual support for the general description of the state of the art at the time of the invention, the interpretation of the prior art references, and provide the basis for the motivation to modify or combine the references. Accordingly, these references should be considered by the Board.

#### 1. Early POS Activation Systems

28. POS activation systems have been used by retailers to activate products for many years. While the details of these systems vary in certain respects, they all operate in fundamentally the same manner.

29. Specifically, with a standard POS activation system, a consumer purchases some sort of physical substrate or indicia, such as a card or coupon, bearing identifying and other information that is encoded on the indicia in either a barcode or magnetic stripe.

30. The indicia is displayed at a retail outlet for purchase along with other items (such as groceries) and has no value until the time of sale when it is activated through the retailer's existing POS system.

31. With these standard POS activation systems, the retailer scans or swipes the indicia at the POS, which reads the encoded information from the indicia's barcode or magnetic stripe and transmits the information along with a request to activate to a remote processor that has a database maintaining records of the indicia.

32. In each POS activation system, the remote processor processes the request to activate and returns a message indicating whether the indicia has been activated along with other information relevant to the transaction. Thereafter, the activated indicia can be used for its intended purpose.

33. Use of POS activation systems first began in the early 1990's in connection with prepaid phone cards that were activated at the time the consumer purchased the cards at a retail establishment.

34. Prior to these first POS activation systems, prepaid phone cards were distributed to retailers in an "active" state, meaning they could be used immediately with no additional processing.

35. Because they were active while displayed on the retailer's shelf, these cards caused a significant problem to retailers with respect to theft, since they could be used whether or not lawfully purchased. Ex. 1013, 1:59-62.

36. To avoid that problem, in the early 1990's, POS activation systems were developed to allow prepaid phone cards to be distributed in an "inactive" state and then "activated" at the time of purchase. These inactive cards had no value while on the shelf and thus posed no risk of theft, since they could not be used for their intended purpose unless and until purchased.

37. One early example of such a POS activation system is described in U.S. Patent No. 5,511,114 to "Stimson," filed in June of 1994 and entitled "Telephone Pre-Paid Card System and Method" ("Stimson I") (Ex. 1010). The Stimson I Patent recognized that by 1994, "[p]re-paid calling card services [were] well-known in the art" but that such cards were "batch-activated by the card provider" prior to distribution. Ex. 1010, 1:12; 1:24-25. An object of the invention of the Stimson I patent was to "provide a telephone pre-paid calling card system that includes on-site activation of calling cards," including "point-of-sale activation

of calling cards using data terminals connectable to a host computer." Ex. 1010, 1:60-66.

38. To activate the pre-paid calling cards of Stimson I, a barcode or some other type of code on the card would be scanned or swiped through a card reader at the POS. Ex. 1010, 4:16-32.

39. The terminal would then send an activation request to a remote host computer along with a card identifier. Ex. 1010, 5:42-60. For each distributed card, the host computer maintained records that included information such as "the card security number" and "the purchase balance of the card," among other information. Ex. 1010, 5:5-14.

**2. Expanded Use of POS Activation Systems**

40. From pre-paid phone cards, use of POS activation systems quickly expanded to other types of pre-paid instruments, such as gift cards, debit cards, and the like. For example, the POS activation system claimed in Simpson I was the subject a continuation-in-part application filed on March 20, 1995 that issued as U.S. Patent No. 5,577,109 ("Stimson II") (Ex. 1011).

41. The POS activation system of the Stimson II patent worked identically to the POS activation system of Stimson I, but included the activation of other types of prepaid cards, such as prepaid "debit cards, smart cards, or any other type

of purchasing card which is currently available or may in the future become generally available." Ex. 1011, 6:20-44.

42. Another POS activation system for activating prepaid cards at the time of sale is described in U.S. Patent No. 5,777,305 (the "Smith I Patent"), filed in July of 1997 and entitled "Package Assembly and Method for Activating Prepaid Debit Cards." Ex. 1012.

43. Like the Stimson Patents, the Smith I Patent notes that one of the shortcomings with prior art cards was "that they are active prior to packaging," making "theft of the prepaid phone cards" a problem. Ex. 1012, 2:34-38. Thus, one of the principal objects of the invention was to provide a "method for activation of a prepaid debit card at a point of sale." Ex. 1012, 2:62-64.

44. As with the Stimson cards, the cards of the Smith I Patent had "no value until [] purchased by a customer at the point of sale," at which point the cards would be activated. Ex. 1012, 6:58-60.

45. To activate the cards, a customer would choose the "prepaid debit card having the desired dollar value, and take[] it to the cash register at the point of sale." Ex. 1012, 7:2-5.

46. There, the mag stripe on the card would be swiped and the "identification number of the prepaid debit card together with an activation

request" would be communicated to a "host computer" located "at a remote location." Ex. 1012, 7:22-29.

47. Upon receipt of the information, the host computer would: "[r]ecognize[] the received information as an identification number for a prepaid debit card, and immediately search[] its database for the corresponding file associated with that identification number. Once located, information for the prepaid debit card having that identification number such as the dollar value of the prepaid debit card, whether the card is active or inactive, and the dollar value of the prepaid debit card remaining [would] generally be available to the host computer. . . . The host computer [would] then process the activation request . . . , update its database with this information, and communicate this information back . . . ." Ex. 1012, 7:31-51.

48. Once activated, the card could be "used to conduct transactions." Ex. 1012, 7:52-54.

49. Over the past 25+ years, POS activation systems for activating prepaid products at the time of purchase using a retailer's pre-existing POS terminal in communication with a remote processor have become ubiquitous.

50. Each of the following patents and patent applications that I discuss below address POS activation systems wherein (i) a pre-printed and encoded instrument is purchased and activated at a retailer's existing POS terminal, (ii) to

activate the instrument, data is read at the retailer's terminal from a barcode or mag stripe on the instrument and sent to a remote processor (either directly or through an intermediate transaction processor); (iii) the remote processor processes the activation request; and (iv) the processor sends a notification to the retailer's POS terminal (directly or through a transaction processor) that the instrument has been activated often with additional information, such as the amount of activation.

51. U.S. Patent No. 6,000,608 (the "Dorf Patent") was filed in July of 1997 and is entitled "Multi-function Card System" (Ex. 1013). The Dorf Patent describes a POS activation system to activate "electronic gift certificate" and other types of prepaid cards, wherein "the clerk swipes the card 101 through the POS device" and transmits the card data to "the system's processing hub" which "activates or recharges the card" in "the appropriate amount in an EC database 205 maintained at the processing hub" and returns an activation "authorization number" back "to the originating POS device." Ex. 1013, 7:35-8:10.

52. U.S. Patent No. 6,454,165 (the "Dawson Patent") was filed on July 1, 2001 and is entitled "Debit Card with Activation Control" (Ex. 1014). The Dawson Patent describes a POS activation system wherein a card is swiped at a POS and card information is transmitted to a remote processor for activation of the card, and "an appropriate message [is] transmitted to the originating data terminal." Ex. 1014, 6:32-65.

53. Publication No. WO 01/059597 (the "Tidball Publication") was filed on .February 12, 2001 (Ex. 1015). The Tidball Publication describes POS systems for activating prepaid cards through existing POS terminals in communication with an "account issuer processing center" that "receive[s] information" from the POS terminal "relating to an account to be activated and, after verification, . . . sending appropriate information . . . to the POS terminal 12 to confirm whether the account has or has not been activated." Ex. 1015, pp. 4-7.

54. U.S. Patent No. 7,024,807 (the "Street Patent") was filed on February 13, 2002 and is entitled "Greeting Card with Scanable Gift Card" (Ex. 1016). The Street Patent describes a greeting card containing a gift card that has "encoded information' and is "activated at the time of purchase" when "the card itself is [] read by a scanner" causing "an account corresponding to the card to be activated after scanning at the point of purchase." Ex. 1016, 1:9-14, 2:36- 40. A "vendor scans the coded portion 46 which in turn activates the account corresponding to the card in a computer database." Ex. 1016, 4:36-42.

55. U.S. Patent No. 8,706,630 was filed on September 5, 2003 and is entitled "System and Method for Securely Authorizing and Distributing Stored-Value Card Data" (the "Graves Patent") (Ex. 1017). The Graves Patent discusses systems for "processing stored-value card requests, such as stored-value card activation" involving a merchant's terminal sending to a "central processor a

specific processing request for a stored value card" after which "the central processor would generate a message indicating that the request has been accepted." Ex. 1017, 2:28-33; 14:59-15:32.

56. U.S. Patent No. 7,093,761, filed June, 24, 2004 and entitled "System and Method for Distributing Stored Value Cards" (the "Smith II Patent") (Ex. 1018). The Smith II Patent discusses a POS activation system for activating an indicia of value to be added to a customer's account through a retailer's point of sale terminal in communication with a "central system." Ex. 1018, 6:53-7:12. "Once the customer selects the indicia, or an article bearing the indicia, the . . . merchant sends a communication to the central system confirming the transaction with the customer so that the identifier at the central system can be activated." The indicia could be a "bar coded card" that "contain[s] information that represents the card's identifier." At the time of "the sale of the card to the customer, the merchant could . . . scan the bar code on the card . . . and notify the central system of the sale of the article bearing the associated identifier." Ex. 1018, 6:53-7:12; 8:22-31.

57. U.S. Patent No. 7,344,067 was filed January 14, 2005 and is entitled Systems, methods and devices for selling transaction instruments" (the "Beck Patent"). Ex. 1019. The Beck Patent describes a POS activation system that involves "hanging the pre-paid card on a rack" and "sending a message" through an existing POS "in substantially real time, causing the pre-paid open transaction

instrument to be funded" while "activating the pre-paid card right away" at the time of sale and "return[ing] an authorization/approval message." Ex. 1019 2:35-49; 7:25-28; 8:22-24.

58. U.S. Patent No. 8,083,133 was filed on May 4, 2005 and is entitled "System and Method for Accounting for Activation of Stored Value Cards" (the Seifert Patent") (Ex. 1020). The Seifert Patent describes POS activation systems that include "a POS device at retailer locations where stored value cards, such as prepaid gift cards," are offered for sale and may be activated, and where the POS device receives identifying data (e.g., a product code) from each card to be activated by the retailer. The identifying data is provided to a distribution database, which creates an activation record for each activated card and "returns an approval to the POS terminal." Ex. 1020, 2:11-21.

59. Publication No. US 2010/0051691 was filed on Sept. 4, 2009 (the "Brooks Publication") (Ex. 1021). The Brooks Publication discusses POS activation systems that "allow activation of gift and other prepaid cards via the merchant's POS system that does not require significant software upgrades, that can use existing POS system communication networks, and that does not require interruption in normal register operations," through the sending and receiving of information between "POS equipment and the card issuer." Ex. 1021, pp. 1-2, ¶¶11-12.

60. U.S. Patent No. 8,862,504 was filed on February 24, 2012 and is entitled "Method and System for Activation and Funding of Prepaid Card Accounts with a Restricted Authorization Network" (the "Sobek Patent") (Ex. 1022). The Sobek Patent describes a "method for activating and funding a stored value, prepaid card account" through "acquiring, with a point of sale (POS) device, a first data set associated with the card and purchase thereof, and a second data set associated with the card and activation, deactivation, funding, loading, and reloading thereof," which is transmitted to an "authorization system" that sends an "approval message to the POS." Ex. 1022, 3:14-32.

61. U.S. Patent No. 8,424,758 was filed on Sept. 23, 2011 and is entitled "Stored Value Card Transaction Control Systems and Methods" (the "Esslinger Patent") (Ex. 1023). The Esslinger Patent describes a POS activation system wherein "a customer visits a merchant or other location where the cards are displayed for sale, selects a card for purchase, and provides it to a clerk at one of the POS terminals 116. The card ID is captured (electronically read or manually entered) at the POS terminal 116. After the customer has paid for the card, the gift card DBMS 130 activates the card and stores a record of the activation in the database 132." Ex. 1023, 2:55-67.

62. U.S. Patent Publication No. 2013/0041768 was filed on January 7, 2011 and is entitled "System for processing, activating and redeeming value added

prepaid cards" ("Llach") (Ex. 1006). Llach describes a method in which "a stored value card transaction processor receives an activation or redemption request for a stored value card from a point of sale terminal," and returns information to the point of sale terminal that "may be printed on the receipt generated for the customer." Ex. 1006, ¶¶ [0004], [00381].

63. U.S. Patent No. 10,296,895 was filed on March 14, 2014 and is entitled "System for processing, activating and redeeming value added prepaid cards" ("Llach II") (Ex. 1025). Llach II describes "a processing and activation system providing consumers with the ability to purchase a stored value card, i.e., a gift card, of various affiliated or non-affiliated service providers with additional value added beyond the purchase price" from "a point of sale terminal." Ex. 1025, Abstract, 1:29-32; *see also* U.S. Patent No. 7,627,497 to Szrek (filed on March 22, 2004 and disclosing the activation of lottery tickets at a retailer's POS system, wherein "the ticket is read at the cash register and activated" by sending data to a lottery system and "[a]cknowledgement of the activation of the ticket is then printed on the cash register receipt.").

### 3. Sale of Lottery Tickets Through Retailers' Existing POS Systems

64. Lotteries have been in existence for hundreds of years and can take a number of different forms. In a random draw lottery, a player purchases a ticket for a lottery draw event that takes place in the future. Ex. 1001. The player can either

select his or her own draw numbers or the draw numbers can be randomly selected by the system. The numbers on the player's tickets are then compared to the numbers randomly selected during the draw event to determine if there is a match and thus a winning ticket.

65. While the '451 patent recognizes that the sale of lottery tickets at retail is nothing new, it suggests that lottery tickets have historically been available only through "single checkout lane environments such as convenience stores and gas stations" and not through "multi-lane environments such as grocery stores, discount and big box retailers." Ex. 1001, 1:53-57. According to the '451 patent, this means consumers must "complete their shopping and pay through any one of many checkout lanes," and then make a "second stop" at the "lottery terminal location in order to purchase the lottery draw ticket." Ex. 1001, 1:57-61. In fact however, it has long been known that lottery tickets can be sold and activated through retailer POS activation systems of the type used to activate prepaid instruments such as pre-paid calling cards. Ex. 1005, Abstract.

66. One such system is described in U.S. Patent No. 7,627,497 (2004), ("Szrek"). Szrek describes a "method and system for selling game of chance tickets at a point of sale cash register." Abstract. The lottery tickets of Szrek "ha[ve] a barcode uniquely identifying" them, but "do[] not have a play value until [they are] activated at the cash register or the lottery terminal." Ex. 1005, 3, 38-40, 4:7. The

lottery tickets are activated through a "process [that] is similar to a model following selling phone cards at the cash register." Ex. 1005, 3:59- 61. Specifically, activation is "done on the cash register by scanning ticket bar code." Ex. 1005, 4:19-22. After "the barcode information has been scanned, [the] cash register originates a transaction to the game provider requesting ticket activation." Ex. 1005, 4:56-64. The game provider then authorizes the activation and sends back lottery product description, price, and activation receipt identifier" which may be printed on the "cash register receipt," which can be "used by the ticket holder to prove that the ticket was activated." Ex. 1005, 4:26-34. Szrek explains that the "preprinted lottery ticket activation transaction may be just another product type and may be integrated with other merchandise sales and receipt." Ex. 1005, 5:1-5.

67. Another lottery POS activation system is described in U.S. Patent No. 6,899,621 (2001) ("Behm"). The invention of Behm "integrates the retail functions of modern point of sale systems' with a "pre-printed lottery game ticket dispensing system." Ex. 1026, 3:55-61. Behm explains that a "plurality of lottery game tokens[] will be provided for display with the store." Ex. 1026, 4:15-16. A "game player traveling through the store while shopping will pick up at least one lottery game token . . . and take the token with them to the POS terminal where the token is presented to a sales clerk for being scanned thereat with the other items purchased." Ex. 1026, 4:21-25. Each "POS terminal will have a bar code reader

adapted to scan product identification codes" including the code printed on the lottery game token. Ex. 1026, 4:66-5:4.

68. Behm also specifically addresses "on-line" lottery games wherein "pre-printed lottery game ticket[s]" have a "bar-code printed on the back of the ticket" that "is scanned by the ticket dispenser bar code reader and forwarded" to an "off-site lottery computer in the form of a new 'Ticket Activation Message.'" Ex. 1026, 14:5-23. Thereafter, the "the lottery computer records the ticket validation number and authorizes the ticket so that the game ticket is now 'live,' and in play." Ex. 1026, 14:24-27.

69. Another lottery ticket activation system is described in U.S. Patent No. 6,267,670 (1997) ("Walker"). According to Walker, the retailer's POS terminals, which "communicate with a lottery data processing system" perform "lottery transactions in addition to merchandise transactions." Ex. 1027, 2:63-3:1. If a consumer wishes to purchase a lottery ticket along with other merchandise, a "lottery ticket request" is sent from the POS terminal and received by "the lottery data processing system, which carries out the lottery transaction." Ex. 1027, 3:1-8. The "lottery data processing system then transmits lottery ticket information back to the POS terminal, which prints "out a single sales receipt containing both lottery ticket information and information concerning the merchandise being purchased." Ex. 1027, 3:8-13. In this respect, Walker "eliminates the need for a separate lottery

ticket system and terminal which in turn eliminates the added costs of the check-out counter space associated therewith." Ex. 1027, 3:14-27.

70. A multiple in-lane lottery ticket sales system is disclosed in U.S. Patent Publication No. 2009/0163263 (2008) ("Herndon"). Herndon describes in-lane lottery sales, wherein "[l]ottery customers present a bar coded or otherwise machine-readable lottery 'token'" to the cashier," which token "may be any type of readable device, such as a coupon, ticket, chip, and so forth," and which "is scanned using the point-of-sale terminal and the in-lane lottery sales computing device" which sends "lottery data" to "a centralized lottery system for handling the request," and where "there is no lottery-specific software running on the retail point of sale system or terminals." Ex. 1028, [0009].

Finally, a system and method for selling tickets through a retailer POS system is disclosed in U.S. Patent Publication No. 2005/0233797 (2005) ("Gilmore"). Gilmore discloses a system and method wherein a pre-printed lottery ticket is scanned at the POS terminal. A lottery system controller 12 (transaction processor) receives the data from the scan and, when a ticket for an online lottery game is scanned, the controller 12 either generates quick pick lottery numbers and sends the numbers to the lottery system 28, or controller 12 sends a quick pick request to the lottery system where the numbers are generated. The lottery system

28 confirms the lottery numbers are recorded and the controller 12 provides confirmation to the POS system.

## B. The Prior Art

### 1. Irwin (Ex. 1030)

72. U.S. Patent No. 9,405,984 titled "LOGISTICS METHODS FOR PORTABLE, MOBILE PROCESSING OF LOTTERY AND CONTEST TICKETS" ("Irwin") was published on August 8, 2013.

73. Irwin discloses a system for "portable lottery ticket sales and redemptions by mobile vendors is provided wherein the vendor have an existing credit or debit card processing interchange." Ex. 1030, Abstract. Irwin was primarily motivated to use established gift card systems to allow customers to purchase and activate lottery tickets. Ex. 1030, 2:14-24. In Irwin's system, a customer can purchase and activate pre-printed lottery tickets for various lottery games, including on-line games (such as Powerball or Mega Millions) and passive games. Ex. 1030, 9:41-65. These lottery tickets are activated by a merchant's POS system (which does not use any special lottery hardware) sending a request to a **lottery central site 160** using a pre-existing credit or debit card processing interchange. In most embodiments, the processing interchange constitutes various third-party processors, including an **acquiring processor 110**, an **interchange 120**, and an **issuing processor 125**. *Id.*, 9:66-10:1. The established network can

process requests from brick and mortar merchants as well as street vendors. Fig. 11, Fig. 19.

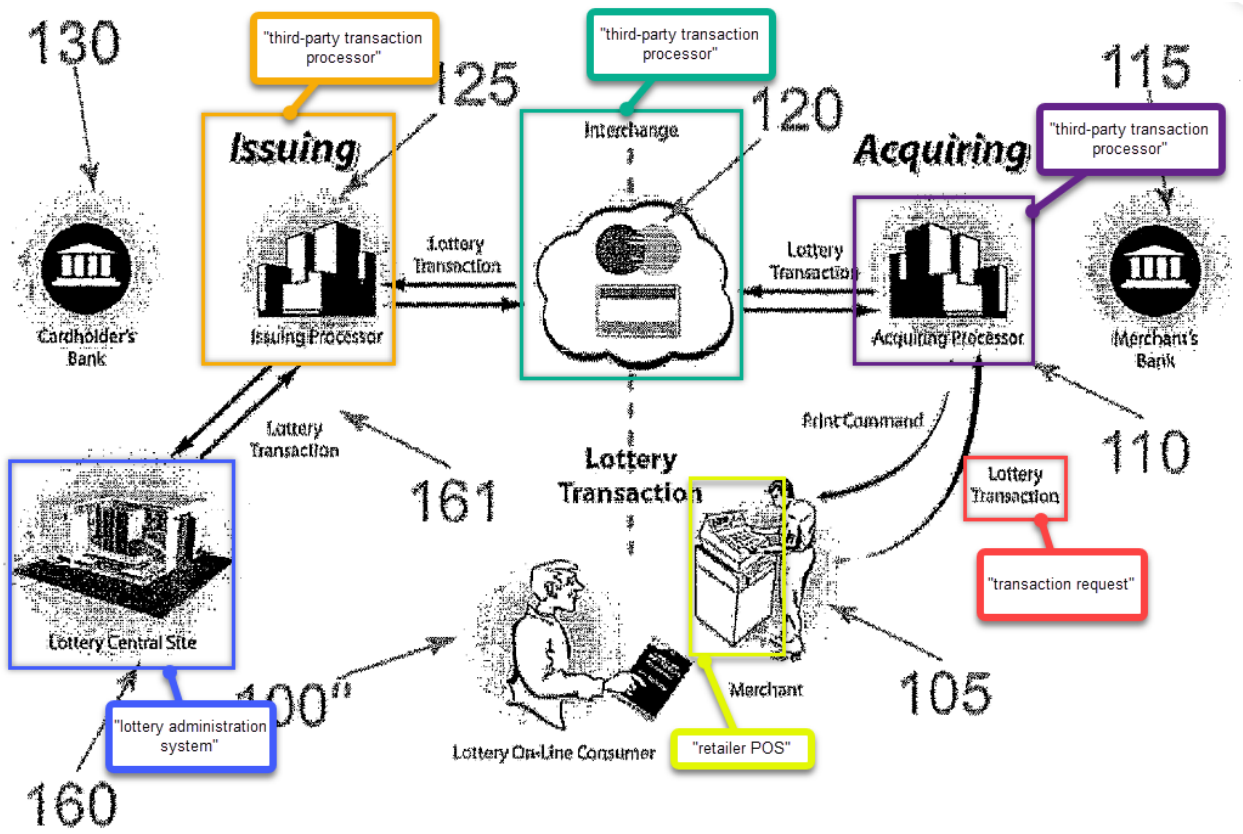



FIG 11

74. In other embodiments, the acquiring and issuing processors are combined into an **issuing/acquiring processor 110'** and the interchange 120 is removed, providing a more direct path between the POS terminal and the **lottery central site 160**. Fig. 22.

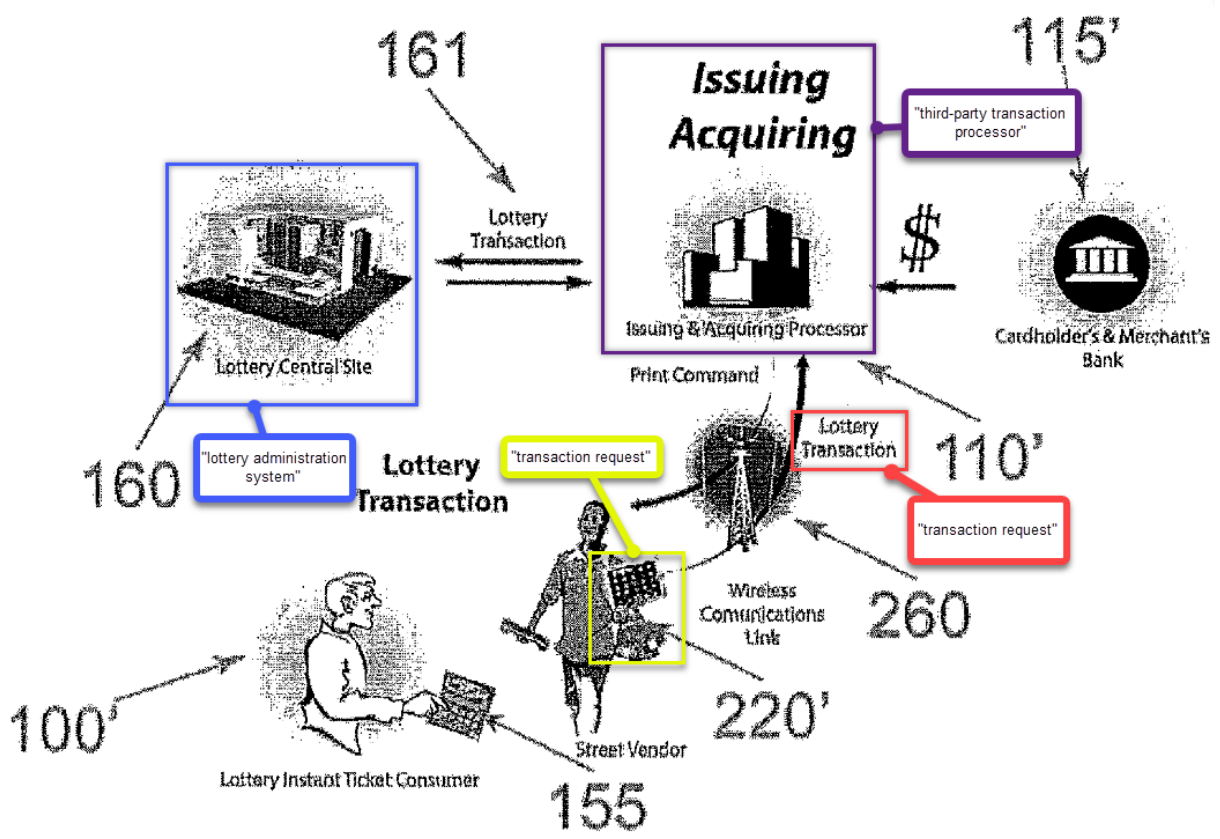


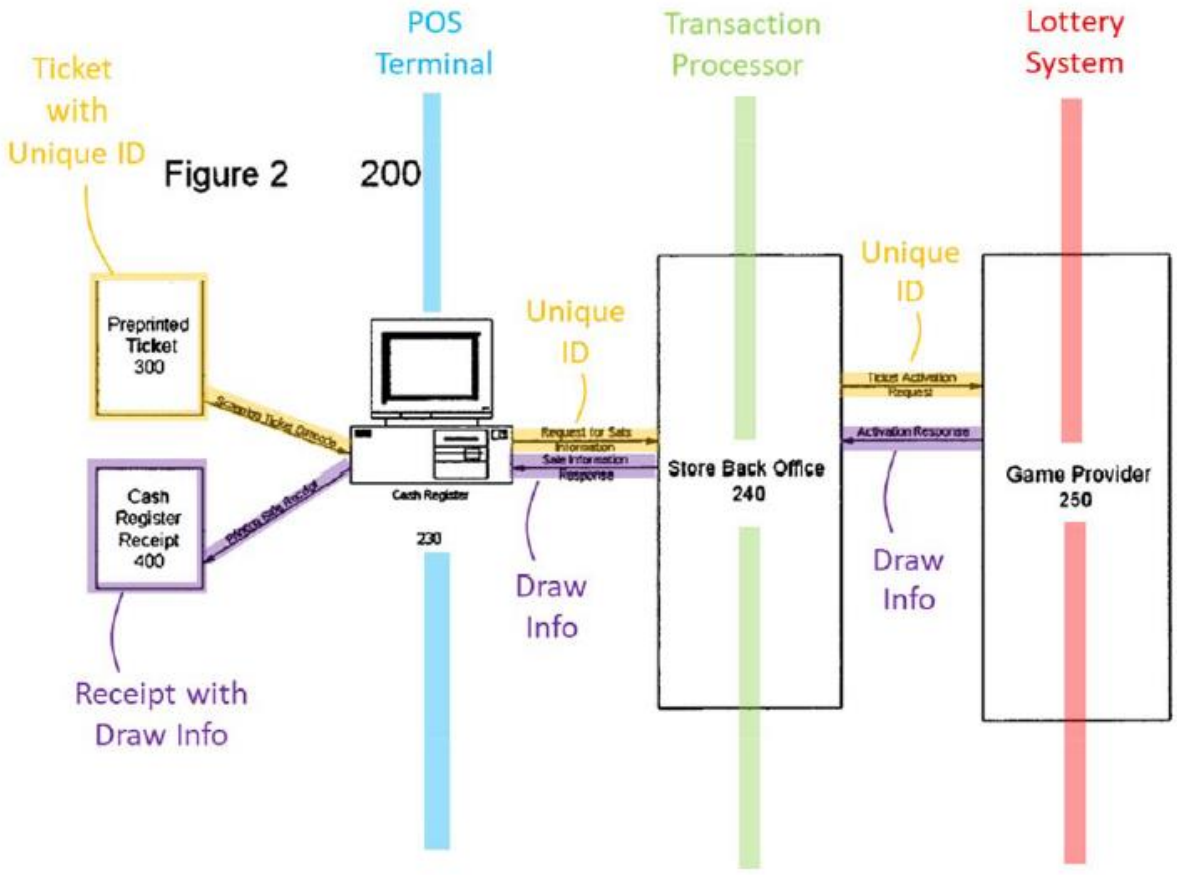

FIG 22

**2. Szrek (Ex. 1005)**

75. U.S. Patent No. 7,627,497 titled "METHOD FOR SELLING LOTTERY TICKETS FROM A POS TERMINAL" ("Szrek") issued on December 1, 2009 from an application filed March 22, 2004.

76. Szrek discloses a system for selling and activating pre-printed lottery tickets. Ex. 1005, Abstract. Szrek discloses that each ticket "has a barcode 310 that could be scanned on the cash register, with information identifying this barcode as lottery ticket 300 and uniquely identifying the ticket 330." *Id.*, 6:7-10. The barcode could also include product information like the chosen bet

combination or the sequence counter. *Id.*, 7:21-31. This information, along with payment confirmation, is sent to a backend game provider which uses that information to activate a lottery ticket. *Id.*, 6:32-37, 6:44-47. The game provider sends to the POS terminal details about the lottery draw, "such as draw number or draw time, [which is] printed on cash register receipt." *Id.*, 6:54-59. Szrek also discloses an embodiment where information sent between the cash register and game provider goes through a store back office, as depicted in the annotated Figure 2 below.



### 3. Llach (Ex. 1006)

77. U.S. Patent Publication No. 2013/0041768 titled "SYSTEM FOR PROCESSING, ACTIVATING, AND REDEEMING VALUE ADDED PREPAID CARDS" ("Llach") published February 14, 2013 from an application filed July 6, 2012.

78. Llach discloses a system for activating stored value cards (*i.e.* pre-printed gift cards) at a POS terminal in a retail store. Llach discloses three components for performing the activation: (1) the POS terminal, which communicates with the (2) transaction computer, which communicates with the (3) card issuers' activation system. These components are depicted below in Figure 1.

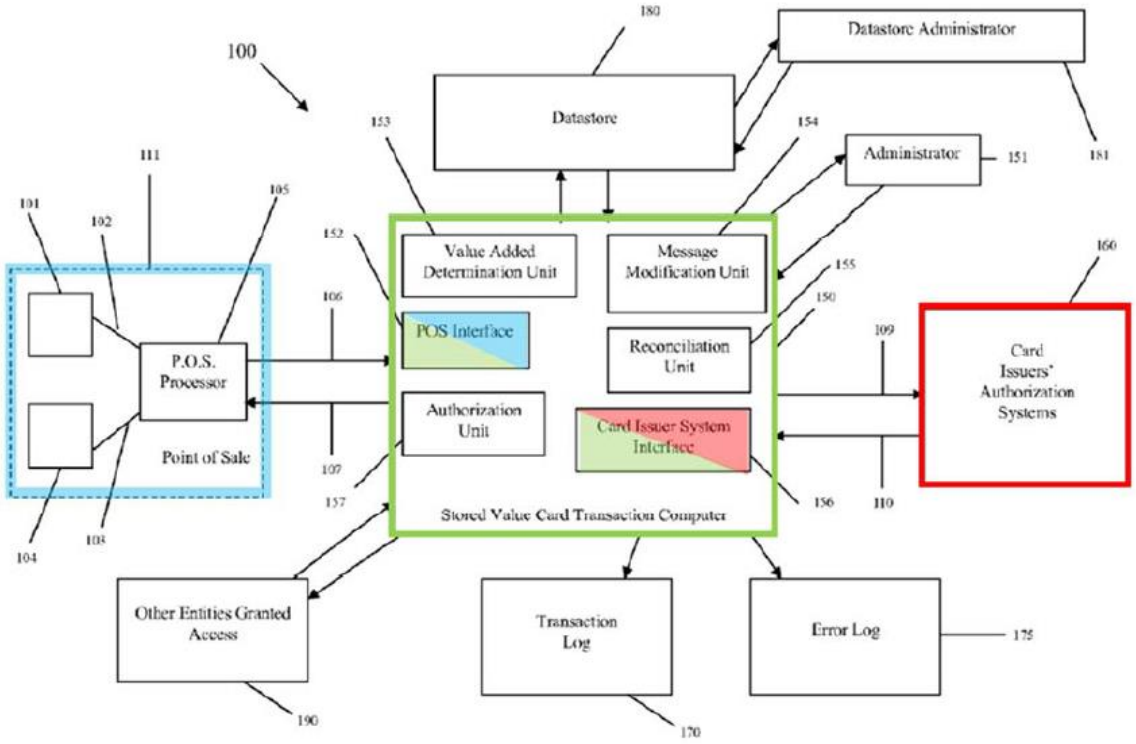



Figure 1

79. The process begins by scanning a barcode on the stored value card, from which is obtained a unique identifier and other information. Ex. 1006, [0019]. That information, along with payment confirmation, is transmitted to transaction computer 150, which processes the transmission and forwards it to the respective card issuers' authorization system. *Id*., [0037]. The authorization system activates the card, and then sends information back to the POS terminal via the transaction computer.

### C. The '451 patent

80. U.S. Pat. No. 11,488,451 (the "'451 patent") is directed to "[a] system and method of selling pre-printed lottery tickets for random draw lotteries through the retailers POS without the use of additional lottery hardware." Ex. 1001, Abstract. As claimed, the POS terminal scans a barcode on a pre-printed ticket and sends the encoded information to a lottery administration system. The POS terminal also confirms payment and sends said confirmation to the lottery administration system as well. The lottery administration then sends information about the lottery draw to the POS, which prints that information on a receipt. The '451 patent also claims a similar system where data that travels between the POS terminal and the lottery administration system does so via an intermediary transaction processor.

**D. PGR2020-00084**

81. I understand that the ’451 patent is related to another patent, U.S. Patent No. 10,769,894 (the “’894 patent”), which has been found by the Board to be unpatentable in a post-grant review proceeding. The ’451 patent was issued from a continuation application based off the ’894 patent’s application. This means that the ’894 patent and the ’451 patent share a substantially identical specification.

82. During the prosecution of the ’894 patent, the applicant filed a terminal disclaimer to overcome a double patenting rejection in view of the ’451 patent. Ex. 1002.

83. Soon after the ’894 patent’s issuance, Petitioner filed a petition for post-grant review against the ’894 patent, PGR2020-00084, arguing that the claims of the ’894 patent were obvious in view of Szrek alone or Llach in view of Szrek. The Board instituted the petition. I contributed an expert declaration in support of the petition and was deposed.

84. On March 15, 2022, the Board issued a Final Written Decision finding all challenged claims to be unpatentable in view of Szrek. PGR2020-00084, Paper 47 (“Ex. 1008”). The Board declined to decide whether the challenged claims were also unpatentable in view of Llach and Szrek. *Id.*, 24. I have reviewed the Board’s decision and agree with it.

85. The Federal Circuit upheld the Board's decision in a non-precedential opinion, holding that the Board's findings were supported by substantial evidence. *Blackhawk Network, Inc. v. Interactive Communications International, Inc.*, 2022-1650, Dkt. 43 (June 7, 2023) (Ex. 1009). I have reviewed the Federal Circuit's opinion and agree with it.

86. I have reviewed the claims of the '894 patent and the '451 patent. They are similar to one another. Like the '451 patent, the '894 patent claims recite a system where a transaction processor receives unique information from a POS terminal that scans a pre-printed lottery ticket, sends that information to a lottery administration system, and receives draw information from the lottery administration system. However, one difference is that the '451 patent requires the transaction processor to be a third-party transaction processor, whereas the '894 patent does not. I note that, during PGR2020-00084, Patent Owner proposed construing the term "transaction processor" from the '894 patent as a third-party transaction processor, which the Board declined to adopt.

87. As I explain in further detail below, Szrek in view of Llach render obvious the claims of the '451 patent, oftentimes for reasons that are similar or identical to those presented in the PGR2020-00084 proceeding and which the Board adopted.

**E. Prosecution History of the ’451 patent**

88. The ’451 patent was filed April 6, 2015 as Application No. US14/679,028. Ex. 1001. During prosecution of the ’451 patent, the examiner issued multiple rejections and the applicant amended its claims multiple times, including the addition of “third-party” to the term “third-party processor.” Ex. 1002, 205.

89. I note that while applicant was prosecuting the ’451 patent, the applicant never informed the examiner of the existence of the PGR against the ’894 patent, or the art that was used in the PGR, until well after its conclusion. I also note that applicant amended the claims to add “third-party” on March 24, 2022, nine days after the Final Written Decision in PGR2020-00084. *Id.* After this amendment, the examiner issued a final rejection based only on obviousness-type double patenting over the ’135 patent, withdrawing his rejections under Section 101 and Section 103. *Id.*, 180-82. After the applicant filed a terminal disclaimer, the examiner issued a notice of allowance on July 1, 2022. *Id.*, 114, 120-21.

90. It was not until August 2, 2022, over a month after the notice of allowance, when applicant informed the examiner of the existence of the PGR and also included the art from the PGR in an Information Disclosure Sheet. *Id.*, 106-07. However, the applicant did not inform the examiner that the ’894 patent had

been invalidated in the PGR, but only that the '894 patent was "involved [in] proceedings ... before the Patent Trial and Appeal Board." *Id.*

91. On August 31, 2022, the examiner issued another notice of allowance. *Id.*, 24. The Notice of Allowance, however, did not mention the PGR or Szrek and merely repeated the earlier notice of allowance that the claims were not obvious in view of Gilmore and McBride. *Id.*, 25-26.

## IV. CLAIM CONSTRUCTION

92. I understand that in an IPR proceeding, claim terms are to be construed using the standard under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), that is, in accordance with its plain and ordinary meaning as understood by a person of ordinary skill in the art. In my opinion, the terms of the challenged claims are all understandable, ordinary English words, and have not been imparted any special meaning by the specification. Thus, none of the claims need to be expressly construed, and should be given their ordinary meaning to a person of ordinary skill in the art.

93. I do note, however, that in PGR2020-00084, the construction of the term "transaction processor" was disputed by the parties and discussed by the Board. In my opinion, this term should be given its plain and ordinary meaning as construed by the Board in PGR2020-00084, which is "a processor that processes transactions between two devices." *See* Ex. 1008, 13-24.

94. In my opinion, this term should be given is plain meaning in view of the ’451 patent, which is “a processor that processes transactions between two devices.” In PGR2020-00084, the parties agreed that the plain meaning of the term “transaction processor” included “a processor that processes transactions between two devices,” and that was how the Board construed the term. Ex. 1008, 15. I agree with the Board.

95. To a POSITA, the ’451 patent’s claims and specification are clear that the transaction processor is a separate and distinct device from the POS terminal and the lottery administration system. With respect to the claims, claim 6 recites a “transaction processor comprising: at least one communication interface for communicating with *other computing systems*” and a “processing unit configure[d]” to “transmit[]” and “receiv[e]” information from a POS terminal or lottery administration system. Claim 2 similarly recites that a POS terminal and lottery administration transmit or receive information from the transaction processor. The Board in PGR2022-00084 similarly held that because of nearly identical claim language in the ’894 patent, “the transaction processor, retailer POS, and lottery administration system [are] distinct components of the claimed invention.” Ex. 1008, 17-20. I agree with the Board.

96. To a POSITA, the specification of the ’451 patent further supports that these components are separate, which the Board in PGR2020-00084 agreed

with respect to identical disclosures in the ’894 patent. Ex. 1008, 20-22 (“[I]t is clear that the Specification [of the ’894 patent] is referring to the retailer POS terminal and the lottery system as the external devices with which the transaction processor system communications through the I/O interface(s).”); Ex. 1001, 8:8-15 (“a retailer’s point of sale terminal 202 ..., a lottery system 220 ... and a transaction processor 630 to facilitate the exchange of data between the retailer’s point of sale 202 and the lottery system 220 each connected to one other through one or more communication networks 218; 219”); 8:59-62 (“transaction processor system 630 may include central processing unit (CPU) 604, memory unit 616 and I/O interface(s) 608 for communicating with devices external to the transaction processor system 630”); Fig. 6 (depicting transaction processor 630 as having a separate CPU, memory and I/O interface from the POS terminal 202 and lottery administration system 220).

97. In PGR2020-00084, Patent Owner argued that “transaction processor” should be construed as a third-party transaction processor. However, the Board declined to adopt that construction. Ex. 1008, 16-17. Because Patent Owner amended the claims of the ’451 patent to expressly requires a third-party transaction processor, it not necessary to further construe “transaction processor.”

## V. GROUND 1: CLAIMS 1-9 AND 11-24 ARE OBVIOUS IN VIEW OF IRWIN ALONE

98. In my opinion, Irwin alone renders obvious claims 1-9 and 11-24, because it discloses a system with third-party transaction processors used for activating pre-printed lottery tickets.

## A. Claim 1

### 1. 1[pre]: A method for providing a manufactured, pre-printed, random draw lottery ticket comprising:

99. To the extent the preamble is limiting, in my opinion, Irwin discloses this limitation.

100. Irwin is directed to "Logistics methods for portable, mobile processing of lottery and contest tickets." Ex. 1001 at Abstract. Irwin further discloses an embodiment where, "[f]or quick-pick ... purchases of ***on-line tickets***," a merchant displays "a plastic hanging card 200" that is manufactured and pre-printed "with a quick-pick coded interchange compatible barcode 201" for selection and purchase by a customer. Ex. 1030, 9:50-56. These cards are tickets for a random draw lottery that supports "quick-pick (i.e., numbers automatically selected for the consumer)," such as "Pick 3, Pick 4, Powerball, Mega Millions," which are examples of random draw lotteries. *Id.* Figure 12 depicts an example of these cards, which, like the gift card it resembles, is clearly manufactured and pre-printed. A POSITA would understand that a printed, plastic card is manufactured and pre-printed.

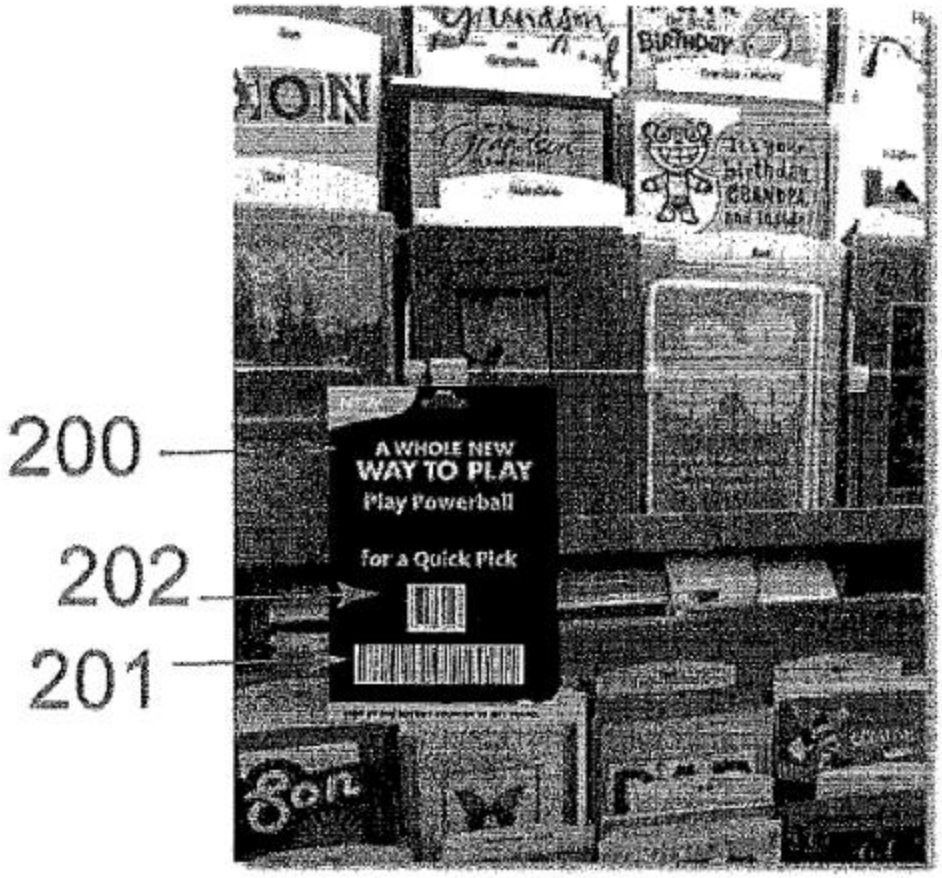



FIG 12

101. Irwin also discloses "preprinted passive tickets 224' (FIG. 20) ... sold through street vendors" that are "registered as sold on the central site." *Id.*, 16:65-17:2. Figure 21 depicts an example of "a preprinted passive ticket," which is clearly manufactured and preprinted.



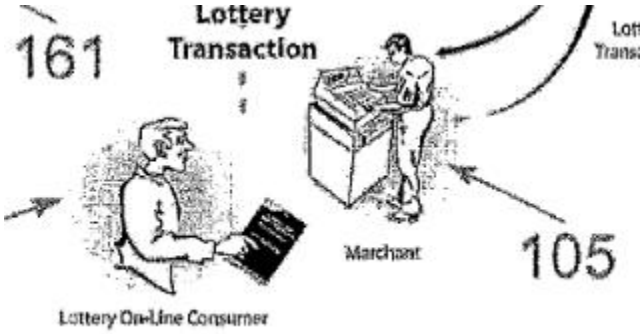

FIG 21

**2. 1[a]: (a) receiving, by a third-party transaction processor, a transaction request from a retailer point of sale (POS) to activate the manufactured, pre-printed, random draw lottery ticket, wherein the manufactured, pre-printed, random draw lottery ticket is selected by a customer prior to initiation of a check-out process and is presented by the customer for activation during the check-out process,**

102. In my opinion, Irwin discloses or renders obvious this limitation.

103. First, for the term "***wherein the manufactured, pre-printed, random draw lottery ticket is selected by a customer prior to initiation of a check-out process and is presented by the customer for activation during the check-out process***," Irwin discloses that "the consumer ... take[s] a plastic hanging card 200 [*i.e.* ***lottery ticket***]... to the merchant," who will "take the hanging card ... and scan

the UPC barcode for the quick-pick sale (202) followed by the interchange compatible barcode 201 to trigger a quick-pick request." Ex. 1030, 9:51-60. Figure 11 depicts a "Lottery On-Line Consumer" presenting a hanging card to a "Merchant" at a POS terminal.




104. Irwin also discloses that such pre-printed cards can also be sold by "street vendors." *Id.*, 9:57-58, 12:44-46, 13:40-42, 15:65-16:19. Irwin also discloses that "preprinted passive tickets" are "sold through street vendors," and a POSITA would understand that such tickets are selected by a customer and presented to the street vendor. *Id.*, 16:65-17:1. A POSITA would also find it obvious that the street vendor could allow a customer to select and present the preprinted passive tickets, because that would allow the customer to choose which ticket to purchase, especially when the vendor may have different types of lottery tickets for sale.

105. For the term "***receiving ... a transaction request from a retailer point of sale (POS) to activate the manufactured, pre-printed, random draw lottery ticket***," Irwin discloses that the merchant scans the hanging card's "barcode 201 to

trigger a quick-pick request." Ex. 1030, 9:51-60. This scanning is done using "the merchant's POS equipment 105." *Id.*, 6:31-35; *see also* Figure 11 (depicting a "Merchant" at a POS terminal 105). This "quick-pick request" is also referred to as a "quick-pick transaction" or, in Figure 11, a "**Lottery transaction**" and is "forwarded to the **acquiring processor 110** (FIG. 11), routed through the **interchange 120**, to the **issuing processor 125**." *Id.*, 9:66-10:1.

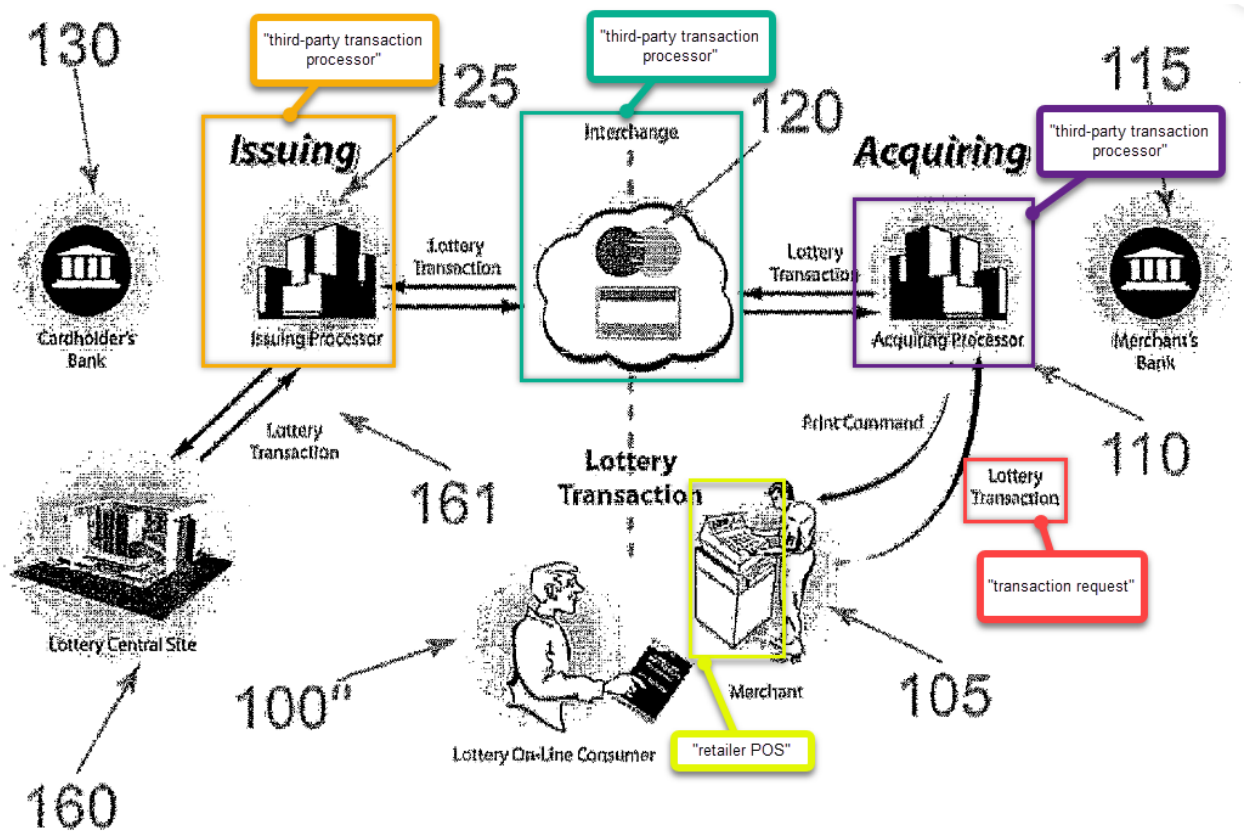



FIG 11

106. This request results in "[t]he lottery's central site" activating the ticket by "generat[ing] a pseudorandom quick-pick" and "log[ing] the quick-pick transaction with a generated serial number on its database." *Id.*, 10:5-9; *see also*

9:43-45 ("on-line (e.g., Pick 3, Pick 4, Powerball, Mega Millions, etc.) sales and ***validation***"); 7:33-35 ("[T]he utilizing of the merchant's POS 105 register to log each ticket sold enables each instant ticket to be activated on an individual basis.").

107. Similarly, when a street vendor sells the pre-printed ticket, he uses a "tablet computer/communications device (e.g., Apple iPad) 221" to sell and validate tickets. *Id.*, 13:19-21, 13:40-42. The tablet is a point of sale terminal because it is used to sell lottery tickets, either with cash or a debit or credit card. *Id.*, 13:50-14:9. The street vendor's tablet uses the same network (including the same **transaction request**, **acquiring processor 110**, **interchange 120**, and **issuing processor 125**) and process as the merchant's POS terminal to purchase and validate lottery tickets. *See id.*, 16:30-36, Fig. 19.

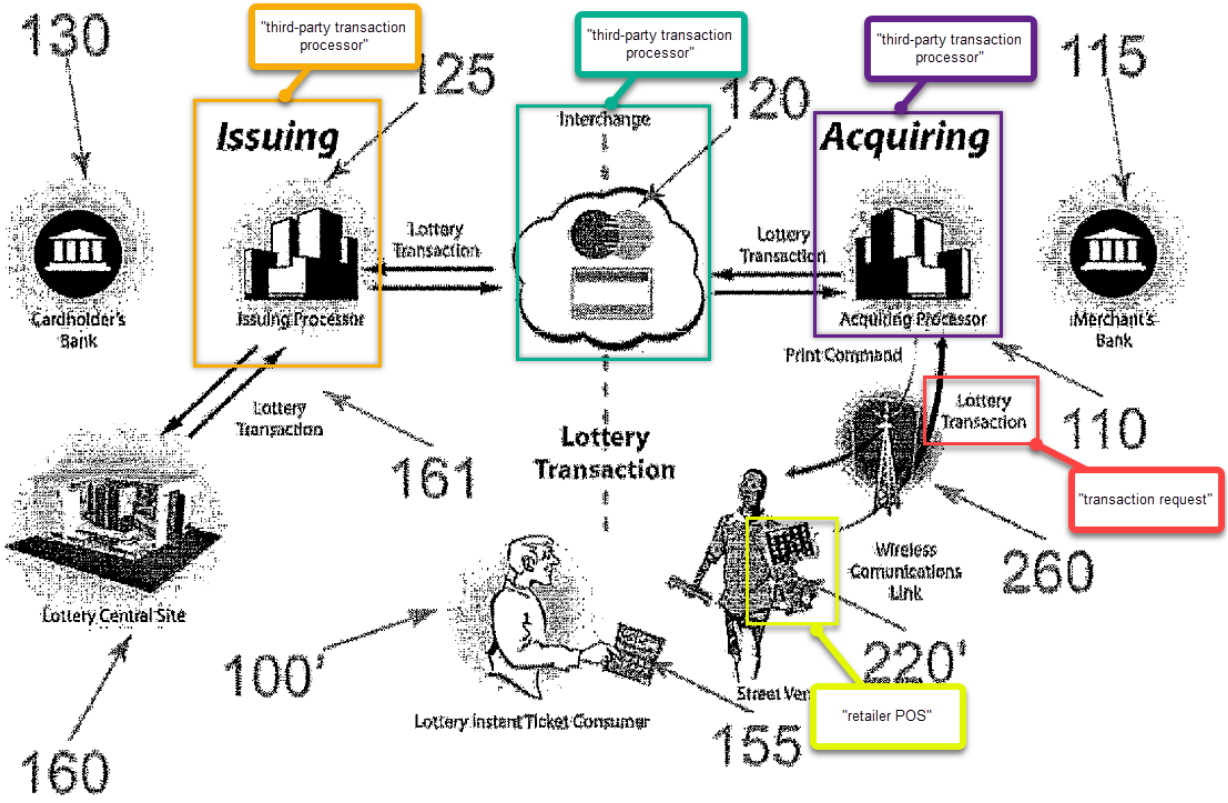



FIG 19

108. For the term "***receiving, by a third-party transaction processor, a transaction request from a retailer point of sale (POS)***," Irwin discloses a number of ***third-party transaction processors*** that receive the activation request from the merchant's POS terminal or tablet, including (1) the "acquiring processor 110," (2) the "interchange 120," (3) the "issuing processor 125," and (4) in some embodiments, a combined "issuing/acquiring processor."

109. The "acquiring processor 110" receives the activation request directly from the POS terminal or street vendor's tablet. *Id.*, 9:66-10:1, Fig. 11, Fig. 19. The acquiring processor 110 is "the institution that has contracted with the

merchant to exclusively conduct his or her debit or credit card transactions." *Id.*, 4:24-26. The acquiring processor 110 is therefore a ***third-party*** processor because it is a different party than the merchant or the customer. The acquiring processor 110 is a ***transaction processor***, which I have proposed be construed as "a processor that processes transactions between two devices," because it processes transactions between the merchant's POS terminal or tablet and the interchange by forwarding the activation request, which it "garner[s] a fee for his or her troubles." *Id.*, 4:27-29.

110. The interchange 120 is a "credit or debit card interchange" that "is actually comprised of multiple operators (e.g., Visa, MasterCard, Discover, etc.)." Ex. 1030, 4:29-31. In my opinion, this also makes it a ***third-party*** processor because it is a different party than the merchant or the customer. The interchange 120 is a ***transaction processor*** because it processes transactions between the acquiring processor 110 and the issuing processor 125 by, for example, "forward[ing] the transaction information to the Issuing processor 125 of the card." *Id.*, 4:36-38. The "interchange 120" ***receives the activation request from the POS terminal*** via the acquiring processor 110. *Id.*, 9:66-10:1, Fig. 11, Fig. 19. In fact, in the '451 patent's specification, the "retailer's point of sale terminal 202" and "transaction processor 630" are "connected to one other through one or more communication networks 218," which a POSITA would understand would include

exchanging data via the processors of one or more network access points, such as routers or interconnection hubs. Ex. 1001, 8:9-16.

111. The "issuing processor 125" is the issuer of the "debit or credit card account number 106," *e.g.* the customer's bank. *Id.*, 4:39-42. Irwin explains that the interchange routes transaction data to a particular issuing processor "based on the Bank Identification Number embedded in debit or credit account number 106." *Id.*, 4:33-38. Thus, in my opinion, it is also a ***third-party*** processor because it is a debit/credit-card-issuing bank that is a different party than the merchant or the customer. The issuing processor 125 is a ***transaction processor*** because it processes transactions between the interchange 120 and the lottery central site 160 by, for example, "detect[ing] either a lottery BIN or a special 'lottery quick-pick BIN' and route the pending transaction ... to the lottery's central site 160." *Id.*, 10:1-5. The "issuing processor 125" ***receives the activation request from the POS terminal*** via the acquiring processor 110 and interchange 120. *Id.*, 9:66-10:1, Fig. 11, Fig. 19.

112. The last example of a third-party transaction processor is in an embodiment depicted in Figure 22, where "the issuing and acquiring processors 110' are the same entity" and "there is no need for an interchange." *Id.*, 17:21-23, Fig. 22. This "**issuing/acquiring processor**" receives the **transaction request** directly from a street vendor's tablet. *See* Fig. 22. For the same reasons I

discussed above, the "issuing/acquiring processor" is also a ***third-party transaction processor***.

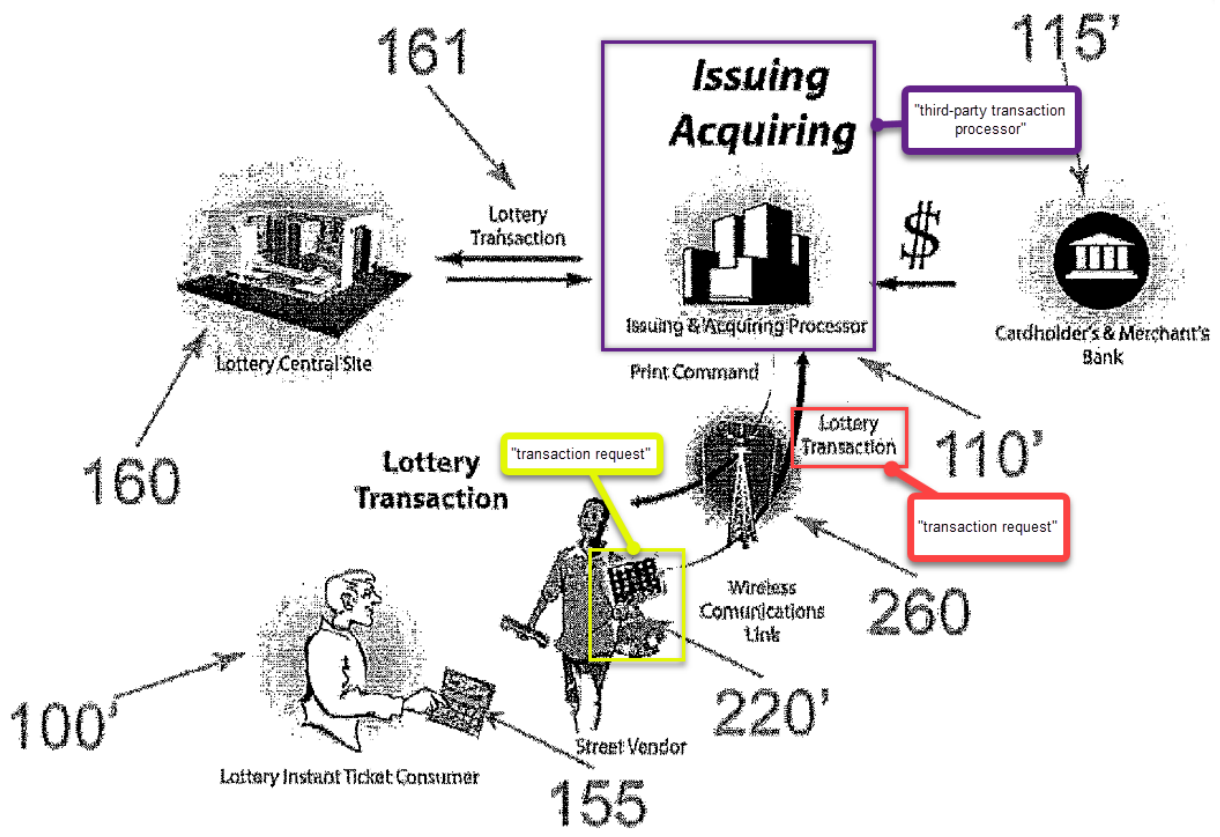



FIG 22

113. Irwin discloses that the network used for selling and activating lottery tickets has been "readily modified to have the advantage of the street vendor 220' using the card issuing processor as also the acquiring processor 110'." *Id.*, 17:18-21. A POSITA would therefore understand that the combined issuing/acquiring processor is used for activating lottery tickets.

114. It is also my opinion that, to the extent Patent Owner argues that Irwin does not expressly disclose that the Figure 22 network is used for activating lottery

tickets (whether by brick and mortar merchant or street vendor), a POSITA would have found it obvious to use the combined issuing/acquiring processor depicted in Figure 22 for activating lottery tickets. A POSITA would have been motivated to do this because "there is no need for an interchange, since the issuing and acquiring processors 110' are the same entity" and "[t]his elimination of the interchange as well as a separate acquiring processor also removes the associated interchange and acquiring processor fees, thus reducing the communication related costs of the transaction." *Id.*, 17:21-26. A POSITA would have reasonably expected this modification to succeed because the acquiring processor, interchange, issuing processor of Figures 11 and 19 have simply been combined into one processor and the activation process otherwise remains the same (and largely the responsibility of the unchanged lottery central site).

**3. 1[b]: wherein the third-party transaction processor receives transaction requests from a plurality of different retailers;**

115. In my opinion, Irwin discloses this limitation.

116. With respect to the "acquiring processor 110," Irwin describes that the "acquiring processor 110" is "the institution that has contracted with the merchant to exclusively conduct his or her debit or credit card transactions," for which it "garner[s] a fee." Ex. 1030, 4:24-26. In 2015, a POSITA would understand that such institutions were typically large institutions that had contracts with multiple merchants (hundreds, if not thousands) to conduct their transactions on their

behalf. In 2015, a POSITA would know that such institutions included large banks such as Wells Fargo, JP Morgan Chase, and Bank of America, as well as technology companies such as Square. *See, e.g.*, https://nilsonreport.com/newsletters/1046/.

117. Moreover, this acquiring processor is part of "the existing credit/debit interchange network" that is used process different transactions with different merchants. *Id.*, 4:15-19. Thus, the "same interchange network" is used for "gift/debit card activation" (*id.*, 4:17-19), activation of "instant (scratch-off) lottery ticket[s]" (*id.*, 6:24-29), and activation of "quick-pick ... purchases of on-line tickets" (*id.*, 9:50-65). Moreover, the same network handles requests from multiple "brick and mortar merchant locations" as well as multiple "street vendors." *Id.*, 12:44-46. Irwin further describes that "for this system to work, ***each merchant*** would have to be assigned an unique inventory report card 175 (FIG. 7) with the merchant's identity encoded on the card ...," further indicating that the acquiring processor handles requests from multiple retailers. *Id.*, 7:10-14; *see also* 11:1-3 ("the issuing processor 125 ... would assign separate crytographic keys to ***each participating merchant 105***").

118. With respect to the "interchange 120," Irwin similarly describes the "interchange 120" as "comprised of multiple operators (*e.g.*, Visa, MasterCard, Discover, etc.)," which a POSITA would understand are large credit card

companies that handle transactions from thousands of retailers. As with the acquiring processor, the interchange is also part of "the existing gift/debit interchange network" that is used to handle lottery ticket activation requests from multiple merchants.

119. With respect to the issuing processor 125," Irwin similarly describes the "issuing processor 125" as the issuer of the "debit or credit card account number 106," *e.g.* the customer's bank. *Id.*, 4:39-42. A POSITA would understand that these are banks that issue credit cards, and such banks handle transactions from numerous retailers which their customers may visit. As with the acquiring processor and interchange, the issuing processor is also part of "the existing gift/debit interchange network" that is used to handle lottery ticket activation requests from multiple merchants.

120. For similar reasons, the combined acquiring/issuing processor in Figure 22 also handles requests from multiple merchants and street vendors.

**4. 1[c]: (b) providing, via a first secured communication, by the third-party transaction processor, to a lottery administration system unique identification information associated with pre-printed lottery ticket information received from the retailer POS without the use of lottery hardware; and**

121. In my opinion, Irwin discloses or renders obvious this limitation.

122. With respect to "***providing ... by the third-party transaction processor, to a lottery administration system***," Irwin discloses that each of the

above ***third-party transaction processors*** (acquiring processor, interchange, issuing processor, acquiring/issuing processor) provide, either directly or indirectly, the activation request to a "lottery central site 160" (*i.e.* ***lottery administration system***) for activation of the lottery ticket. Ex. 1030, 10:1-4, Fig. 11, Fig. 19, Fig. 22. Below are annotated versions of Figures 11 and 22 that depict how the transaction processors communicate with the lottery administration system.

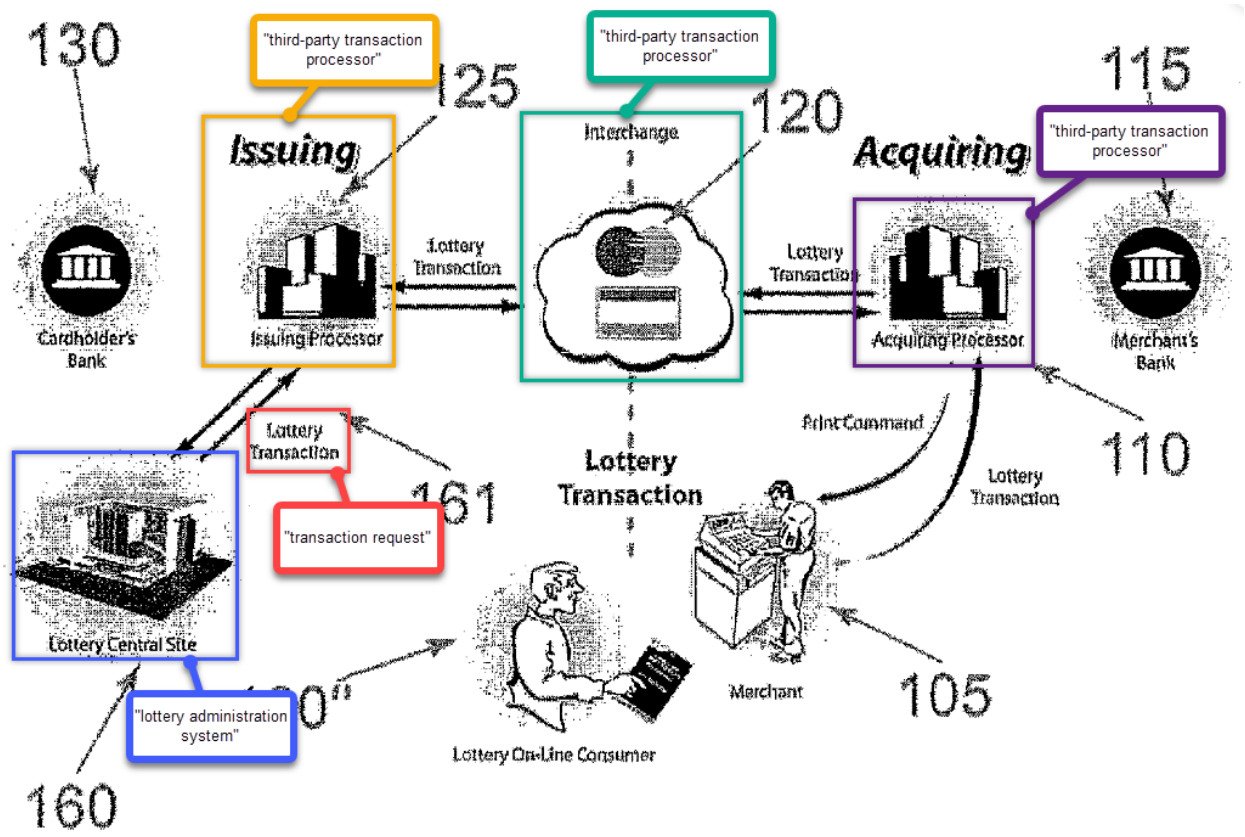



FIG 11

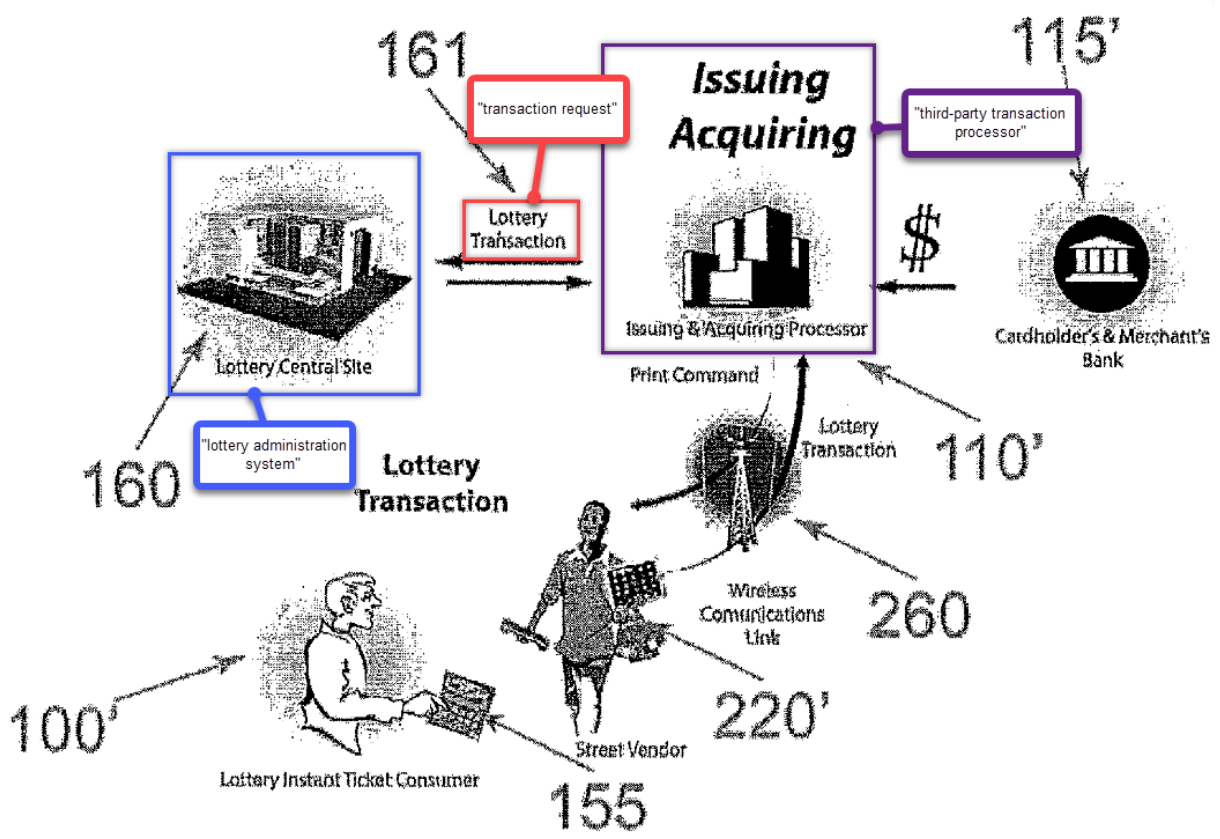



FIG 22

123. With respect to "***via a first secured communication***," it is my opinion that Irwin discloses that the request sent to the lottery central site 160 is a ***secured communication***. Specifically, Irwin discloses that the "interface 161" used to send the request to the lottery central site 160 is "secure to data manipulation or monitoring" and preferably employs "a Virtual Private Network (VPN) ... to ensure that the interface 161 was authenticated and encrypted, with its unique Internet Protocol (IP) addresses secured from monitoring." Ex. 1030, 6:39-49.

124. With respect to the limitation "***unique identification information associated with pre-printed lottery ticket information received from the retailer***

***POS***," it is my opinion that Irwin discloses that the third-party transaction processors provide to the lottery central system 160 ***unique identification information*** associated with the lottery ticket and received from the POS.

125. For example, for preprinted quick-pick cards, the merchant or street vendor POS extracts "a lottery BIN 206" and a "quick-pick coded interchange compatible barcode 201" from the card that are "concatenated to a data blob (207) containing the quick-pick request data," which is sent to the lottery central site. Ex. 1030, 9:50-65. The lottery BIN is "unique to lottery tickets" and "associated with a lottery data blob also provided on the lottery ticket," *i.e.* ***unique identification information associated with the lottery ticket***. *Id.*, cl. 1. The interchange compatible barcode likewise "contain[s] the [unique] BIN." *Id.*, cl. 7. Moreover, since the interchange compatible barcode is "quick-pick coded," it is likewise ***unique identification information associated with the lottery ticket.***

126. And for pre-printed passive tickets, they are "printed in advance with unique identifiers." Ex. 1030, 16:42-44. Figures 20 and 21 depict pre-printed tickets with "unique identifiers 227" and "unique serial number 225." *Id.*, 16:60-61. The "ticket's serial number 225' and 226' (barcode embodiment of serial number) [are] scanned [using the vendor's POS tablet] and recorded in a central site database at the time of sale." *Id.*, 16:67-17:2.

127. With respect to the limitation "***received from the retailer POS without the use of lottery hardware***," Irwin discloses that its system "eliminat[es] the need for special vending hardware," *i.e.* "custom hardware ... installed at the retailer's place of business." Ex. 1030, 7:43-49; *see also* 2:56-57 ("eliminate the logistical need for any custom hardware at a retailer POS"). For street vendors, "no special lottery equipment is carried by the street vendor." *Id.*, 13:24-25. These teachings disclose that the POS systems do not use any lottery hardware.

**5. 1[d]: (c) receiving, via a second secured communication, by the third-party transaction processor, from the lottery administration system, indication that draw information has been associated with the manufactured, pre-printed, random draw lottery ticket.**

128. In my opinion, Irwin discloses this limitation. Irwin discloses that after a pre-printed quick-pick card or pre-printed passive lottery ticket is activated, the lottery central site (*i.e.* ***lottery administration system***) provides draw details for the activated ticket (*i.e.* ***draw information***) to the above third-party transaction processors.

129. For activation of a pre-printed quick-pick card, the lottery central cite "decode[s] the quick-pick request, use[s] a random number generator to generate a pseudorandom quick-pick, log[s] the quick-pick transaction with a generated serial number on its database, and transmit[s] a print command documenting the quick-pick and the assigned serial number to be printed on the merchant's printer." *Id.*,

10:5-12. In my opinion, the provision of such draw details, particularly the pseudorandom quick-pick numbers and the serial number, and the print command are ***indications that draw information has been associated with the lottery ticket.***

130. In my opinion, for activation of a pre-printed passive lottery ticket, the ticket will be "registered as sold on the central site," which involves "tying the ticket to a particular drawing." *Id.*, 17:3-13. Once registered, the street vendor can "print out a receipt specifying the associated preprinted passive game ticket's serial number with the drawing's date and time," *i.e.* ***draw information associated with the lottery ticket***. *Id.*, 17:13-16. Since it is the lottery central site which associates a ticket to a particular drawing, such draw information was sent by the lottery central site to the street vendor, which is an indication that said draw information was associated with the lottery ticket.

131. As depicted in Figures 11, 19, and 22, the draw details from the lottery central site are sent through channel 161, which as described above is a secure channel. Thus, the draw details sent by the lottery central site are a ***secured communication.***

### B. Claim 2: "The method of claim 1, wherein receiving the transaction request comprises receiving unique product information associated with the manufactured, pre-printed, random draw lottery ticket over a secure communication channel from the retailer POS."

132. In my opinion, Irwin discloses or renders obvious this limitation.

133. As I discussed above for limitation 1[c], for pre-printed quick-pick cards, Irwin discloses that the POS sends a unique "lottery BIN" and a "quick-pick coded interchange compatible barcode 201" with the transaction request. Ex. 1030, 10:1-5, cls. 1, 7. Either of these are ***unique production information associated with the lottery ticket*** because they are information specific to quick-pick and lottery ticket products. Irwin also discloses that the "unique lottery BIN" is "associated with a lottery data blob provided on the lottery ticket." Ex. 1003, Abstract. The term "data blob" is a IT industry term of art commonly used to refer to a portion of a data transmission that contains encoded information that has meaning to the receiving party (in this case the lottery administration system), and contains unique product information. *See* Ex. 1030,

134. For pre-printed passive lottery tickets, the POS sends "unique identifiers" and "unique serial numbers. *Id.*, 16:60-61. Either of these are ***unique production information associated with the lottery ticket*** because they are information specific to pre-printed passive lottery ticket products.

135. Irwin also discloses that the "issuing processor ... forward[s] ... the retailer identification code to the lottery's central site 160." *Id.*, 6:54-56. The retailer identification code is also ***unique product information*** because it is information specific about the location the product was sold.

136. While Irwin does not explicitly disclose that this information is sent by the POS terminal to the third-party transaction processor using a ***secure communication channel***, as discussed above for limitation 1[c], Irwin does describe that the channel 161 between the issuing processor and the lottery central site is a ***secure communication channel***, such as through the use of a VPN. *Id.*, 6:39-49. Thus, in my opinion, a POSITA would have found it obvious to use a similar secure communication channel between the POS terminal and the third-party transaction processors, such as by connecting the POS terminal to a VPN. A POSITA would be motivated to do this because, as Irwin explains, the use of a VPN "ensure[s] that the interface ... was authenticated and encrypted [and] secured from monitoring." *Id.*, 6:39-49 ("secure to data manipulation and monitoring"). Indeed, since channel 161 between the issuing processor and the lottery central site is secured, a POSITA would find it desirable to secure all of the channels between the POS terminal and the lottery central site to ensure the data is not subject to "manipulation and monitoring" on any of the other channels. A POSITA would have reasonably expected such a modification to succeed because by the time of the '451 patent, VPNs were conventional and ubiquitous and well within the capabilities of a POSITA to implement on a network connection.

### C. Claim 3: "The method of claim 1, wherein draw information is made available on a printed receipt; by scanning a code on the manufactured, pre-printed, random draw lottery ticket; or by entering a unique identifier associated with the manufactured,

**pre-printed, random draw lottery ticket into an online website or mobile application."**

137. In my opinion, Irwin discloses this limitation.

138. With respect to the limitation "***wherein draw information is made available on a printed receipt***," as I discussed above for limitation 1[d], the process for activating a pre-printed quick-pick card or a pre-printed passive lottery ticket both involve printing a receipt that contains draw information.

139. With respect to the limitation "***by scanning a code on the manufactured, pre-printed, random draw lottery ticket***," for pre-printed quick-pick cards, activation begins by "scan[ing] the UPC barcode ... followed by the interchange compatible barcode" on the card. Ex. 1030, 9:50-60. For pre-printed passive tickets, the "ticket's serial number 225' and 226' (barcode embodiment of serial number) [are] scanned and recorded in a central site database at the time of sale." *Id.*, 16:67-17:2. Thus, for both embodiments, activation begins by scanning a code on the pre-printed ticket.

### D. Claim 4: "The method of claim 1, further comprising receiving unique product information associated with the manufactured, pre-printed, random draw lottery ticket, and wherein the third-party transaction processor provides the transaction requests from plurality of different retailers to a single lottery system."

140. In my opinion, Irwin discloses this limitation.

141. With respect to the limitation "***further comprising receiving unique product information associated with the manufactured, pre-printed, random draw lottery ticket***," I establish how Irwin discloses this limitation in claim 2.

142. With respect to the limitation "***wherein the third-party transaction processor provides the transaction requests from plurality of different retailers to a single lottery system***," as I discussed above for limitation 1[b], the "same interchange network" (including the third-party transaction processors and the lottery central site) is used to activate different types of lottery tickets (*e.g.* quick-pick, passive) from different types of merchants (*e.g.*, brick and mortar merchants, street vendors). Moreover, the "lottery central site" is a "single lottery system" because it is central system.

### E. Claim 5: "The method of claim 4, wherein the product information is sufficient to determine one or more of: a game type associated with the manufactured, pre-printed, random draw lottery ticket; ..."

143. In my opinion, Irwin discloses this limitation. As I discussed above for claim 2, the product information transmitted includes information specific to quick-pick and passive lottery ticket products, such as the "lottery data blob." *Id.* 20:25-65. A POSA would understand that this data would represent product information ***sufficient to determine the game type associated with the lottery ticket***.

### F. Claim 6: The method of claim 1, further comprising retrieving unique identification information associated with the manufactured, pre-printed, random draw lottery ticket from the received product information.

144. In my opinion, Irwin discloses this limitation. As an initial matter, I note that the term "received product information" does not have an antecedent basis in claim 1. But I will assume that it includes the "unique identification information" that is sent from the POS terminal to the transaction processor.

145. For pre-printed passive lottery tickets, Irwin discloses that "the ticket's serial number 225' and 226' (barcoded embodiment of serial number) [is] scanned and ***recorded in a central site database*** at the time of sale." 16:67-17:2. As discussed above for limitation 1[c], such information is unique identification information. Since these serial numbers are scanned from the ticket, they must have been sent with the activation request (*i.e.* ***received production information***) and must have been retrieved by the central site in order to record them in the database (*i.e.* ***retrieving unique information***).

### G. Claim 7: "The method of claim 1, further comprising validating the received transaction request."

146. In my opinion, Irwin discloses or renders obvious this limitation.

147. Irwin discloses that the activation request is validated by "detect[ing] either a lottery BIN or a special 'lottery quick-pick BIN' and rout[ing] the pending transaction through the designated channel 161 to the lottery's central site 160."

Ex. 1030, 10:1-5. The presence of the "special lottery BIN" indicates that the request "contained lottery information and to subject the packet to special processing." *Id.*, 6:13-15. Thus, by detecting and using the lottery BIN to route it to the lottery central site, a POSITA would understand that the system has validated that the request has the required lottery BIN. Without validation of the lottery BIN, the request will not be routed to the correct site.

148. Irwin further discloses an entire process for "[v]alidations of on-line game tickets (e.g., Pick 3, Pick 4, Powerball, Mega Millions, etc.)," specifically "a perceived winning on-line ticket." *Id.*, 11:20-12:2. The validation involves the lottery central site "comparing the received serial number to a drawing database to determine if the scanned ticket's serial number is a winner." *Id.*, 11:60-62. The validation of a winning ticket is also a validation of the transaction request because a ticket cannot be a valid, winning ticket unless the transaction request was successful in activating that ticket.

149. Irwin further discloses that the transaction request can be validated by a merchant requesting a merchant-specific "inventory report" from the lottery central site, which "logs every instant ticket sale." *Id.*, 6:62-7:10. Such inventory reports validate a request by confirming and validating that the request successfully completed. Although Irwin only discloses such inventory reports in the context of "instant tickets" (*e.g.* scratch-off tickets), a POSITA would have found it obvious

to allow for requests for inventory reports for pre-printed quick-pick and passive tickets as well. A POSITA would have been motivated to do this because, as Irwin explains, inventory reports provide "inventory control" and resolve "the problem of maintaining a centralized inventory control for ... ticket sales," which are just as applicable to quick-pick and passive tickets as it is with instant tickets. Ex. 1030, 6:63-67. A POSITA would have reasonably expected this to succeed because Irwin already discloses that the central site records quick-pick and passive ticket sales and thus it would be trivial and well within the capabilities of a POSITA to extend the inventory reports to support those sales.

### H. Claim 8: "The method of claim 7, wherein validating the received identification information comprises verifying that the product information corresponds to identification information associated with the manufactured, pre-printed, random draw lottery ticket."

150. In my opinion, Irwin discloses this limitation. Irwin discloses that, for validating a quick-pick ticket winner, the acquiring processor "detect[s] the lottery BIN" in order to "forward the data packet ... to the lottery central site 160." *Id.*, 11:54-58. The central site "extract[s] the on-line ticket validation request, comparing the received serial number [*i.e.* ***identification information***] to a drawing database to determine if the scanned ticket's serial number is a winner." *Id.*, 11:60-62.

151. A POSITA would also have understood that the lottery administration system ("central site") would, as a matter of course, validate the received identification information against reference information in its drawing database.

### I. Claim 9: "The method of claim 8, wherein validating the transaction information includes verifying that the product is validly distributed by retailer of the plurality of different retailers."

152. In my opinion, Irwin discloses this limitation. Irwin discloses that, for sending an inventory report request, "each merchant would have to be assigned an unique inventory report card 175 (FIG. 7) with the merchant's identity encoded on the card both as human readable 176 as well as embedded in the proxy barcode 177." *Id.*, 7:11-14. The unique "proxy barcode" is included in the inventory report request, and the lottery central site verifies the merchant by "identifying data unique to the merchant issuing the request." *Id.*, 7:14-24.

### J. Claim 11: "The method of claim 1, wherein the information provided to the lottery administration system includes one or more randomly determined lottery numbers generated at the time the manufactured, pre-printed, random draw lottery ticket is purchased at the retailer POS."

153. In my opinion, Irwin discloses or renders obvious this limitation. Irwin discloses that, when pre-printed quick-pick cards are activated, the lottery central site "use[s] a random number generator to generate a pseudorandom quick-pick," *i.e.* ***randomly determined lottery numbers***. *Id.*, 10:7-8. A POSITA would understand that the numbers are generated ***at the time*** of purchase because a

POSITA would understand that the time it takes for the activation request to reach the lottery central site and the time it takes to generate random numbers would typically take a few seconds, and possibly less than a second. A POSITA would understand that the plain meaning of "at the time" does not require simultaneity, because that is physically impossible to achieve with computer systems. A POSITA would understand that a few seconds of delay is within the plain meaning of "at the time."

154. To the extent Patent Owner argues that the limitation "at the time" requires that the numbers are generated at the retailer POS, it would have been obvious to a POSITA to generate the numbers on the retailer POS instead of the lottery central site. A POSITA would be motivated to do this because it would distribute the task of number generation to the numerous retailer POS systems instead of using precious computing resources at the central site. Moreover, generating the numbers at the retailer POS would allow for a customer to confirm the randomly-generated numbers, or ask the system to provide a different set of randomly-generated numbers, thereby increasing customer satisfaction. Finally, because on-line lotteries allow for customers to choose their own lottery numbers, such lotteries can have multiple winners—there is no need for the retailer POS systems to worry about providing duplicate lottery numbers. A POSITA would have reasonably expected this to succeed because using a random number

generator to generate pseudorandom numbers was conventional and ubiquitous at the time of the ’451 patent, and could be done using the limited processing power of a POS system.

### K. Claim 12: “The method of claim 1, wherein the information provided to the lottery administration system includes one or more randomly determined lottery numbers associated with the manufactured, pre-printed, random draw lottery ticket prior to the time the manufactured, pre-printed lottery ticket is purchased at the retailer POS.”

155. In my opinion, Irwin discloses or renders obvious this limitation.

156. Irwin discloses that pre-printed passive lottery tickets have “unique identifiers” that are pre-printed on the tickets (*e.g.* element 227’ of Figure 21), *i.e.* ***determined prior to purchase***, and “[d]rawings are subsequently held picking the identifiers that correspond to specific prizes,” *i.e.* the identifiers are ***lottery numbers***. *Id.*, 16:41-45. A POSITA would understand that these identifiers are ***randomly determined*** because they are lottery numbers. To the extent Patent Owner argues that these lottery numbers are not randomly determined, a POSITA would have been motivated to generate random numbers as it would decrease the possibility of counterfeit lottery tickets, as the counterfeiter would not know in advance which numbers are winning numbers. A POSITA would have reasonably expected this to succeed because using a random number generator to generate pseudorandom numbers was conventional and ubiquitous at the time of the ’451 patent

157. With respect to quick pick tickets, Irwin does not expressly disclose preprinted lottery cards with the quick pick random selections generated and printed at the time of manufacturing of the cards. However, Irwin does disclose an analogous use case involving pre-printed passive lottery tickets, "preprinted passive tickets 224 (FIG. 20) could still be sold through street vendors with the tickets serial number 225' and 226' (barcoded embodiment of serial number) scanned and recorded in a central site database at the time of sale." *Id.*, 16:65-17:15. A POSITA would have understood that a similar technique could be applied to preprinted lottery quick pick numbers.

### L. Claim 13: "The method of claim 1, wherein the retailer POS does not use lottery hardware at a retailer location to activate the lottery ticket."

158. In my opinion, Irwin discloses this limitation. As I explained above for limitation 1[c], the merchant and street vendor POS systems do not use any lottery hardware.

### M. Claim 14: "The method of claim 1, wherein the manufactured, pre-printed, random draw lottery ticket comprises a barcode."

159. In my opinion, Irwin discloses this limitation. As I explained above for limitation 1[a], the pre-printed quick-pick cards have a UPC barcode and interchange compatible barcode, and the pre-printed passive lottery tickets have a "barcoded embodiment of serial number." *Id.*, 16:67-17:2.

### N. Claim 15: "The method of claim 14, wherein the barcode comprises a first party information and a second party information."

160. In my opinion, Irwin discloses this limitation. Irwin discloses that the pre-printed quick-pick cards have a UPC barcode and interchange compatible barcode. The UPC barcode is ***first party information*** because, being a "Universal Product Code," it is information about the particular quick-pick card, including the lottery that distributes them. The lottery company is a ***first party***. The interchange compatible barcode is ***second party information*** because it is "compatible with the proxy data normally passed over the debit or credit interchange," *i.e.* it is information about the interchange operator "(e.g., Visa, MasterCard, Discover, etc.)," who is a ***second party***. Ex. 1030, 9:60-63, 4:29-31. The operator of the acquiring processor and/or issuing processor are ***third parties***.

### O. Claim 16: "The method of claim 14, wherein the barcode comprises a universal product code and pre-printed lottery ticket information."

161. In my opinion, Irwin discloses this limitation. As I discussed above for limitation 1[a], Irwin discloses that the pre-printed quick-pick cards have a UPC barcode. A POSITA would also understand that the UPC is ***pre-printed lottery ticket information*** because it is information about the particular lottery ticket (*i.e.* the particular quick-pick card) that is being purchased. The pre-printed quick-pick cards also have an interchange compatible barcode, which is also ***pre-***

***printed lottery ticket information*** because it is "quick-pick coded," *i.e.* it is information that the ticket is a quick-pick ticket. Ex. 1030, 9:51-53.

### P. Claim 17: "The method of claim 1, wherein the manufactured, pre-printed, random draw lottery ticket contains information used to redeem a winning prize."

162. In my opinion, Irwin discloses this limitation. As I discussed above for limitation 1[a], the pre-printed quick-pick cards have an interchange compatible barcode, and the pre-printed passive lottery tickets have a serial number barcode. And as I discussed above for limitations 1[a] and 1[c], this information is included in the activation request and used to activate the lottery ticket. Therefore, the information is ***used to redeem a winning prize*** because a winning prize cannot be redeemed unless the ticket is activated first.

### Q. Claim 18: "The method of claim 1, wherein the lottery administration system generates wagers for the manufactured, pre-printed, random draw lottery ticket and a draw date is assigned to the wagers."

163. In my opinion, Irwin discloses or renders obvious this limitation. Irwin discloses that "[w]hen selling on-line tickets the street vendor 220 would ... type ... the specific wager," which is "logged on the central site database," *i.e.* ***the lottery administration system***. *Id.*, 16:1-10. Irwin also states that for "brick and mortar retailer POS equipment," the "consumer's smart telephone 275 (FIG. 25) application 276' would accomplish the lottery network wager registration process by automatically changing its display to a barcode 281 that is formatted to be

compatible with the proxy data packet 205 (FIG. 13) normally passed over the debit or credit interchange." *Id.*, 19:47-55. As a result, the wager is "register[ed] ... with the lottery network." *Id.*, 19:11-12.

164. The lottery central site registers the wagers, *i.e.* ***generates wagers for the lottery ticket***. Irwin discloses that the wagers are ***assigned to a draw date***, specifically that preprinted lottery tickets are "registered ... for a future drawing," which a POSITA would understand would have a draw date. *Id.*, cl. 5. Moreover, Figure 14, which depicts a receipt of an on-line lottery ticket, includes what a POSITA would understand to be a draw date of September 13, 2012, which would have been received from the lottery central site.

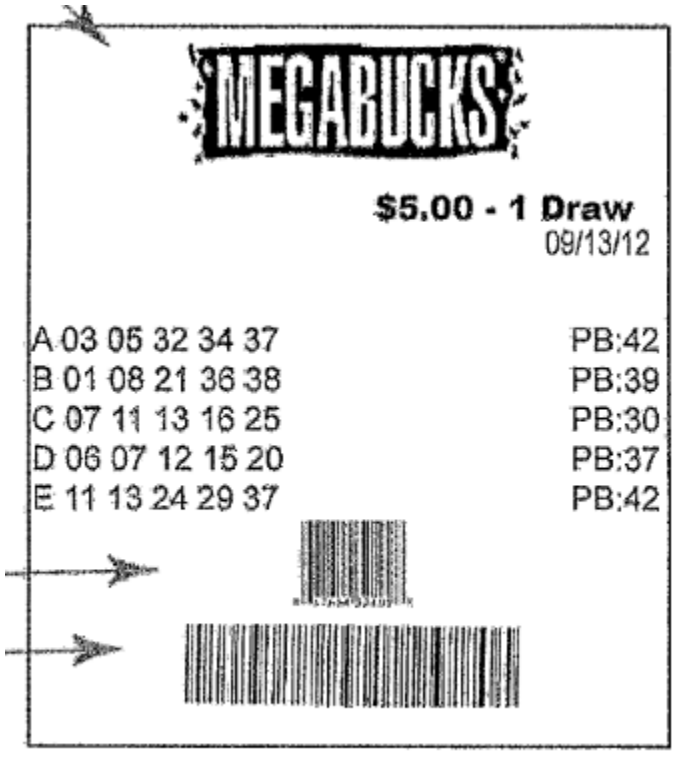



FIG 14

165. Irwin also describes that for preprinted passive lottery tickets, the ticket's serial number is associated "with the drawing's date and time," which is printed on a receipt. *Id.*, 17:14-17. A POSITA would have considered it obvious to also associate a quick-pick ticket's wagers with the drawing's date and time, and to have that date and time printed on the receipt. A POSITA would be motivated to do this because it would "eliminate confusion and/or false claims." *Id.*; Ex. 1030, 17:16-17. A POSITA would have reasonably expected this to succeed because it would have been within the capabilities of a POSITA to modify the lottery central site's database to include the drawing date and time for the quick-pick ticket, which is a trivial change.

### R. Claim 19: "The method of claim 1, wherein lottery numbers are entered in a draw."

166. In my opinion, Irwin discloses this limitation. Irwin discloses that, for pre-printed quick-pick cards, the lottery central site "use[s] a random number generator to generate a pseudorandom quick-pick," a quick-pick being lottery "numbers automatically selected for the consumer." Ex. 1030, 10:7-8, 9:50-51. These numbers are "log[ged] ... with a generated serial number on [the central site's] database" and "printed on the merchant's printer." *Id.*, 10:8-12; Fig. 14. The quick-pick ticket is "for a given on-line game (e.g., Pick 3, Pick 4, Powerball, Mega Millions, etc.)," *i.e.* the lottery numbers ***are entered in a draw***, such as the Powerball or Mega Millions. *Id.*, 9:54-56.

**S. Claim 20: "The method of claim 1, wherein the first secured communication, the second secured communication, or combinations thereof are encrypted."**

167. In my opinion, Irwin discloses this limitation. As I discussed above for limitation 1[c] and 1[d], the first and second secured communication use interface 161 which is a "VPN" that is "encrypted." *Id.*, 6:39-49.

**T. Claim 21: "The method of claim 1, wherein activation requests are received from the plurality of different retailers and for at least one of the plurality of different retailers, the activation requests are received from a plurality of retailer locations and from a plurality of retailer points of sale at the plurality of retailer locations."**

168. In my opinion, Irwin discloses this limitation. Irwin discloses that retailers can have a ***plurality of retailer locations***, and that each location have a ***plurality of retailer points of sale***. Irwin discloses that a retailer has "stores" and that each store has "POS (Point of Sale) systems." *Id.*, 2:1. Irwin further discloses that retailers include the "vast majority of big box and drug stores" which sell "gift/debit card[s]." *Id.* A POSITA would understand that "big box and drug stores," such as Walmart, Target or CVS, typically have multiple locations around the country.

**U. Claim 22: "The method of claim 21, wherein the activation requests include requests for a plurality of different lottery games."**

169. In my opinion, Irwin discloses this limitation. As I discussed above for claim 1, Irwin discloses that activation requests include requests for different

quick-pick on-line games (such as Powerball or Mega Millions), as well as passive lottery games. Irwin also discloses activation of instant lottery tickets (e.g. scratch-off tickets). Ex. 1030, 6:39-7:24. These are all ***different types of lottery games***.

### V. Claim 23: "The method of claim 22, further comprising validating, by the third-party transaction processor, transaction information from the plurality of different retailers."

170. In my opinion, Irwin discloses this limitation. As I discussed above for claim 7, Irwin discloses that an activation request is validated by "detect[ing] either a lottery BIN or a special 'lottery quick-pick BIN' and rout[ing] the pending transaction through the designated channel 161 to the lottery's central site 160." Ex. 1030, 10:1-5. Because the BIN is used to route the request to the central site, such validation is performed by the third-party transaction processors (*i.e.* acquiring processor, interchange, issuing processor, acquiring/issuing processor).

### W. Claim 24: "The method of claim 22, wherein validating the transaction information includes verifying that a product is validly distributed by a retailer of the plurality of different retailers and, where the product is verified, providing the transaction information to the lottery system."

171. In my opinion, Irwin discloses or renders obvious this limitation. As I discussed above for claim 8, Irwin discloses ***validating the transaction information includes verifying that a product is validly distributed by a retailer of the plurality of different retailers***, specifically that the unique inventory report card's proxy barcode is verified during an inventory report request. When the

product is verified, the inventory report request is processed by the lottery central site by "generat[ing] the requested inventory report and send a series of print commands back through the same interchange path to cause the merchant's POS printer to print a hardcopy of the report at the merchant's location 105." Ex. 1030, 7:6-10. Thus, the lottery system (including the lottery central site) is provided the inventory report request.

172. To the extent Petitioner argues that the claim requires that the validation occurs before the request is sent to the lottery central site, a POSITA would have found it obvious to instead perform the above merchant validation at the third-party transaction processors prior before it is sent to the lottery central site. A POSITA would have been motivated to do this because performing the verification earlier would reduce the number of network transactions if the merchant cannot be verified, saving time and computing resources. *Id.* Moreover, because the acquiring processor is "the institution that has contracted with the merchant to exclusively conduct his or her debit or credit card transactions" (Ex. 1030, 4:24-26), a POSITA would find it desirable for the acquiring processor to validate the merchant before performing any debit or credit card transactions. A POSITA would also have reasonably expected such a modification to succeed, because it would simply involve the minor change of having the acquiring processor (or any of the other third-party transaction processors) perform the

merchant validation instead of the lottery central site, which was well within the capabilities of a POSITA at the time of the ’451 patent.

## VI. GROUND 2: CLAIM 10 IS OBVIOUS IN VIEW OF IRWIN AND SZREK

173. In my opinion, Irwin combined with Szrek renders obvious claim 10. Claim 10 recites “The method of claim 7, wherein the validation comprises age validation.” Claim 7 recites “The method of claim 1, further comprising validating the received transaction request” and is rendered obvious by Irwin as I discussed above.

174. While Irwin does not expressly disclose age validation as part of validating the transaction request, Szrek discloses “verifying a player’s age prior to activating the first ticket to participate in the game event.” Ex. 1005, cl. 19. Szrek discloses that the activation of the ticket occurs after a “point of sale terminal” sends an activation request. *Id.*, cl. 1.

175. In my opinion, a POSITA would have found it obvious to incorporate Szrek’s age validation into Irwin’s system.

176. As an initial matter, both Szrek and Irwin are analogous art to the ’451 patent because all three are directed to the same field of endeavor, specifically a system for selling lottery tickets. Ex. 1001, Abstract (“A system and method of selling pre-printed lottery tickets for random draw lotteries through the retailers POS”), Ex. 1030, Abstract (“A method for portable lottery ticket sales and

redemptions by mobile vendors is provided"), Ex. 1005, Abstract ("The present invention is a method and system for selling game of chance tickets at a point of sale cash register.").

177. A POSITA would have been motivated to combine Irwin's system with Szrek's age validation by incorporating Szrek's teaching of "verifying a player's age prior to activating" (Ex. 1005, cl. 7) a lottery ticket at the lottery central site as disclosed in Irwin. A POSITA would understand that this combination would provide the known benefits of age verification, including the ability to enforce age restrictions required by law. Moreover, a POSITA would understand that an automated process (or even partially automated process) for age verification would be faster and more reliable than a purely manual process performed by a merchant. For example, a POSITA would understand that age could be verified by scanning a government-provided ID card, such as a driver's license or a passport. A POSITA would also understand that the face on the ID card could be matched with the face of the customer either manually or using any face recognition algorithm known at the time. *See, e.g.*, Exs. 1031, 1034.

178. A POSITA would have reasonably expected the combination to succeed. Manually or automatically verifying a customer's age by checking their ID card would have been a minor change to Irwin's system, well-within the skill of a POSITA.

## VII. GROUND 3: CLAIMS 1-10 AND 12-24 ARE OBVIOUS IN VIEW OF SZREK AND LLACH

179. In my opinion, Szrek combined with Llach render obvious claims 1-10 and 12-24. As the Board held in PGR2020-00084, Szrek discloses or renders obvious POS terminals that send transaction requests to a lottery administration system via a transaction processor. Ex. 1008, 30-65. While Szrek does not expressly disclose a third-party transaction processor, Llach discloses a third-party transaction processor and it would have been obvious to combine Szrek with Llach.

### A. Rationale to Combine Szrek and Llach

180. In my opinion, a POSITA would have found it obvious to modify Szrek's system for activating lottery tickets to incorporate Llach's teachings of an intermediary transaction computer between Szrek's cash register and game provider system, as well as Llach's encryption and use of VPN for communications to and from the transaction computer.

181. A POSITA would be motivated to do this because it would allow Szrek's system to have a centralized system for activating lottery tickets from different retailers and different locations, thereby allowing the system to be easily and cheaply extended. Moreover, a centralized intermediary allows for support for different game providers, such as different lottery companies. This would reduce implementation costs. In addition, Llach discloses a number of features that its

transaction computer can perform that would be desirable to a POSITA, including (1) the ability to communicate "with individual card issuers' authorization systems 160 to effectuate activation or deactivation of the transaction cards" (Ex. 1006, [0030]), (2) the ability to communicate with "other entities" that may provide useful services, such as "third party payment management systems, third party audit systems, card issuer, affiliated entities, card vendor affiliated entities, redeeming merchants or redeeming merchant affiliated entities, financial institutions, such as banks and credit unions, or any other entity provided access by the stored value card transaction computer administrator." *Id.*, [0032].

182. A POSITA would also be motivated to combine the two references because Szrek expressly teaches their compatibility. In particular, Szrek teaches that its process for activating pre-printed lottery tickets "is similar to a model following selling phone cards at the cash register." Ex. 1006, 2:36-46. According to Szrek, "phone cards do not work unless they are sold and activated through the cash register in the store" and "[i]n this case the sale of the card would be registered and authorization request, including phone card identifier, would be sent to the card issuer or his agent for the phone card activation." *Id.* This broadly describes the same system disclosed by Llach. Szrek also discloses that communications between POS terminals and the game provider system can be

done "indirectly," such as through an intermediary like that disclosed in Llach. Ex. 1005, 3:15-17.

183. Indeed, the well-known application of gift card activation systems for lottery ticket activation is how Patent Owner entered the lottery ticket activation business. Patent Owner describes itself as "the largest distribution network of gift cards in the United States and in Canada." Ex. 1035, ¶14. In Blackhawk's gift card activation system, "a gift card is purchased at the point-of-sale at a retail partner, an activation request is sent to Blackhawk" which "serves as a central hub, receiving those activation requests from thousands of retail partner stores and routing those transactions to card processors." *Id.* In mid-2018, Blackhawk took the obvious and well-known step of "use of its network to help sell lottery products, ... where consumers could buy a pre-printed lottery ticket ... and have the lottery ticket activated at the 'point-of-sale' and entered into a lottery drawing." *Id.*, ¶16. Patent Owner itself expressly stated that in this system, "lottery tickets could be sold throughout the store and activated at any checkout counter, ***just like a gift card***." *Id.*

184. Because of these compatibilities between gift card activation systems and lottery ticket activation, a POSITA would understand that the proposed combination would simply be the application of Llach's known techniques for using a transaction computer to activate substrates to Szrek's known system.

185. A POSITA would have combined Szrek and Llach as proposed with a reasonable expectation of success. As discussed, Szrek and Llach disclose that their systems are compatible with one another. Incorporating Llach's transaction computer with Szrek's system would also be well within the capabilities of a POSITA, because such modification would be minimal and trivial to implement. Indeed, Llach provides numerous implementation details for implementing the functionalities of its transaction computer as well as communications to and from the transaction computer.

186. Moreover, the combination of Szrek and Llach would have yielded predictable results. A POSITA would have readily understood that combining Szrek with Llach would predictably result in Szrek's system modified to use Llach's transaction computer as an intermediary between the POS terminal and game provider system.

187. Like Llach and Szrek, the '451 patent is directed to the field of activating pre-printed cards. Ex. 1001, 1:13-16. All three references, therefore, are directed to the same field of endeavor, and are analogous art.

## B. Claim 1

### 1. 1[pre]: A method for providing a manufactured, pre-printed, random draw lottery ticket comprising:

188. To the extent the preamble is limiting, in my opinion, Szrek discloses ***a method for providing a manufactured, pre-printed, random draw lottery ticket***.

Szrek is titled "Method for ***selling lottery tickets*** from a POS terminal" and is directed to a "method and system for ***selling game of chance tickets*** at a point of sale cash register." Ex. 1005, Title, Abstract. Szrek discloses that these tickets include a "***draw*** identifier 460, such as ***draw number*** or ***draw time***." *Id.*, 6:58. Szrek further discloses that "[t]he ticket can be ***preprinted*** ... as a computer generated selections (quick pick)," and a POSITA would understand that "quick pick" refers to an option for a customer of a lottery ticket to have a computer choose random numbers for a random draw. *Id.*, 3:28-31; Ex. 1003, ¶106. Szrek further discloses that the preprinted ticket is ***manufactured*** because it is preprinted "by a commercial printer," can be "enveloped or covered by latex," and contain a "manufacturer's ID." Ex. 1005, 3:26-27, 3:31-32, 4:46-48.

189. I will note that in PGR2020-00084, the Board concluded that Szrek discloses a similar limitation of "a method of providing a lottery ticket for a random draw." Ex. 1008, 30; Ex. 1007, 53-54. The Board also concluded that Szrek discloses "a pre-printed lottery ticket." Ex. 1008, 33. I agree with the Board's conclusions.

**2. 1[a]: (a) receiving, by a third-party transaction processor, a transaction request from a retailer point of sale (POS) to activate the manufactured, pre-printed, random draw lottery ticket, wherein the manufactured, pre-printed, random draw lottery ticket is selected by a customer prior to initiation of a check-out process and is presented by the customer for activation during the check-out process,**

190. In my opinion, Szrek in view of Llach renders obvious this limitation.

191. With respect to the limitation "***wherein the manufactured, pre-printed, random draw lottery ticket is selected by a customer prior to initiation of a check-out process and is presented by the customer for activation during the check-out process***," Szrek discloses that "[a] lottery player may choose his own selection and ... he may pick up a ticket 300 printed by the commercial printer 140." Ex. 1005, 6:24-27. The ticket is then "activat[ed] ... via a cash register 230" by a "store clerk." *Id.*, 6:28-37. A POSITA would understand that picking up a ticket to be activated by a store clerk requires presenting said ticket to the clerk for activation.

192. With respect to the limitation "***receiving ... a transaction request from a retailer point of sale (POS) to activate the manufactured, pre-printed, random draw lottery ticket***," Szrek discloses that in order to "activat[e] the lottery ticket 300 via a cash register 230," "[t]he store clerk scans ticket 300 like any other product," which results in a "transactional request to the game provider 250." *Id.*, 6:28-37.

193. I note that in PGR2020-00084, the Board found it was "undisputed" that "Szrek describes preprinted ticket 300 with unique ticket identifier 330 that, when scanned at the POS terminal (cash register 230), is communicated in a transaction request to a transaction processor (store back office 240) that then provides the transaction request to a lottery administration system (game provider 250)." Ex. 1008, 42. I agree with the Board's conclusion.

194. With respect to the limitation "***third-party transaction processor***," Szrek discloses that the "cash register 230" sends a "transactional request to the game provider 250." Ex. 1005, 6:28-37. Szrek further discloses that "the cash register is capable of communicating with the game provider system" either "directly or indirectly." *Id.*, 3:14-17. Szrek, however, does not explicitly disclose that indirect communications with the game provider are routed through a "third-party transaction processor."

195. Llach teaches transmitting an activation request from a POS terminal to a "stored value card transaction computer 150," *i.e.* ***a third-party transaction processor***. Ex. 1006, [0033]. Llach's transaction computer is a ***transaction processor*** because it is ***a processor that processes transactions between two devices***. Llach discloses that the transaction computer 150 "may be implemented on any general-purpose computer with sufficient processing power," and "includes a ***processor*** 582." *Id.*, [0074]. The transaction computer processes transactions

between the POS terminal and the card issuers' authorization system, as depicted below in annotated Figure 1. Ex. 1003, ¶226. In particular, as discussed herein, the transaction computer processes activation requests from the POS terminal by forwarding them to the card issuer's authorization system. *Id.*

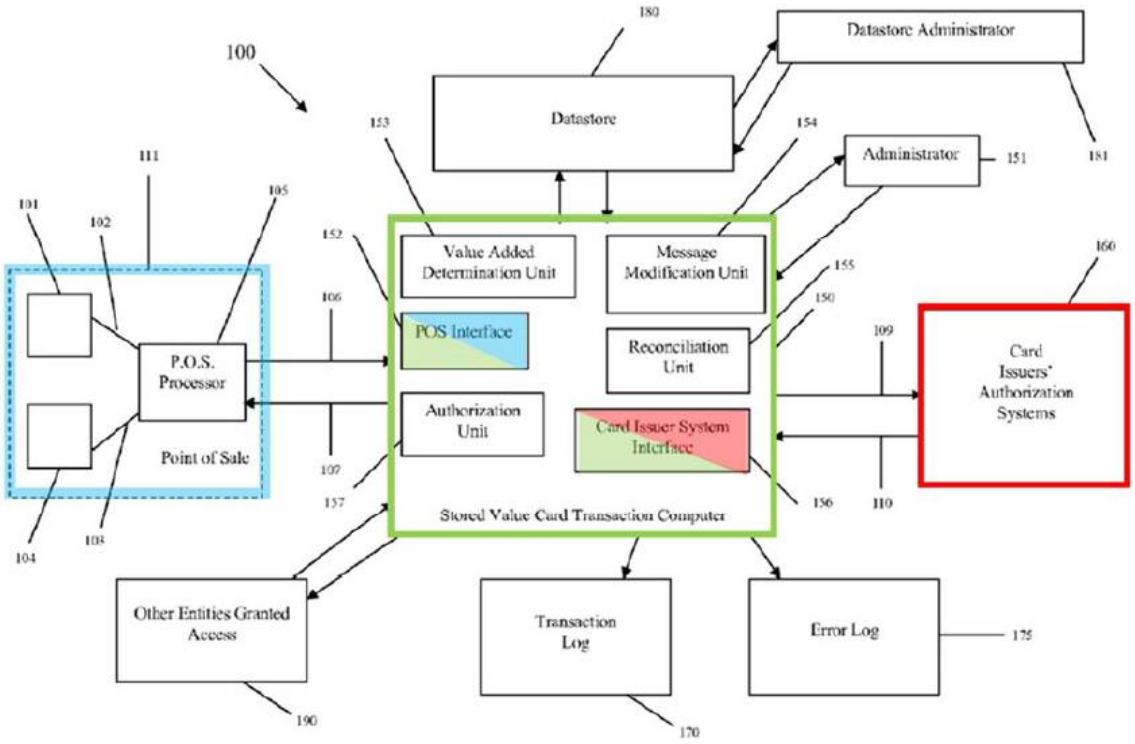



Figure 1

196. Llach discloses at least four "different" parties: "a card vendor, a redeeming merchant, and a card issuer," as well as a "consumer." Ex. 1006, [0013]. Llach also discloses that "in some embodiments," the "transaction computer" is "part of the same entity" as "the card issuer" and "the authorizing system," making the transaction computer a ***third-party transaction processor***. *Id.*, [0040].

197. As I discussed above, a POSITA would have found it obvious to incorporate Llach's transaction computer in Szrek as an intermediary processor between the cash register and game provider. Thus, Szrek in view of Llach render obvious this limitation.

### 3. 1[b]: wherein the third-party transaction processor receives transaction requests from a plurality of different retailers;

198. In my opinion, Szrek in view of Llach render obvious this limitation.

199. Llach discloses that "[t]he point of sale where stored value cards are purchased and activated may be referred to as the card vendor or simply vendor" and that "cards may be sold at the same or different card vendor." Ex. 1006, [0014]. Llach further discloses that the "transaction computer 150" will "communicat[e] with card ***vendors***," *i.e.* ***a plurality of different retailers***. *Id.*, [0024]. Llach also discloses that the activation request contains the "identification of the activating vendor" and "location of the activating vendor." *Id.*, [0034]. Llach also discloses that cards from one vendor "may be issued by Store X, by Store Z." *Id.*, [0014]. Thus, Llach discloses that stored value cards can be purchased at multiple retailers, that the transaction computer communicates with multiple retailers, and that the transaction request identifies which of multiple retailers sent the request. A POSITA would understand from these disclosures that Llach's transaction computer receives transaction requests from multiple retailers.

200. As discussed above, a POSITA would have found it obvious to incorporate Llach's transaction computer in Szrek as an intermediary processor between the cash register and game provider. This combination would therefore render obvious this limitation.

**4. 1[c]: (b) providing, via a first secured communication, by the third-party transaction processor, to a lottery administration system unique identification information associated with pre-printed lottery ticket information received from the retailer POS without the use of lottery hardware; and**

201. In my opinion, Szrek in view of Llach render obvious this limitation.

202. With respect to the limitation "***providing ... by the third-party transaction processor, to a lottery administration system unique identification information associated with pre-printed lottery ticket information received from the retailer POS without the use of lottery hardware***," Szrek discloses that the transaction request sent to the game provider (via the third-party transaction processor in the Szrek-Llach combination) includes the ticket identifier (*i.e.* ***unique identification information***) obtained from the lottery ticket's barcode. Szrek states that, "during ticket activation, the game provider ... recognizes ***from the ticket identifier*** what transaction is activated (e.g. lotto, 6 specific boards known to the system and the player)," which means the game provider must have received the ticket identifier. Ex. 1005, 3:47-50; *see also id.*, 6:36-39 ("game provider ... will activate this ticket by marking a status or state of ***corresponding***

***identifier***.”). Since the ticket identifier originates from scanning the ticket at the POS terminal, a POSITA would understand based on this disclosure that the POS terminal also sent the ticket identifier to the transaction processor within the transaction request, which was then sent to the game provider, in order to provide the game provider the necessary information to activate the correct ticket. Without such information, the game provider would not be able to perform the activation taught by Szrek.

203. In any case, it is also my opinion that a POSITA would have also considered it obvious for the POS terminal to transmit the ticket identifier to the game provider via the transaction processor (in the Szrek-Llach combination) because the game provider “recognizes ***from the ticket identifier*** what transaction is activated,” and thus transmitting the ticket identifier beneficially allows the game provider to know which ticket to activate and to perform the recited function of activating the ticket. It would have also been beneficial to transmit the ticket identifier with the transaction request because sending them separately would be slower, more inefficient, and more difficult to implement than sending them in a single transaction. Sending them separately would require some mechanism for the game provider to map requests with ticket identifiers—whereas sending them together would allow the game provider to handle the activation request in its entirety. A POSITA would have reasonably expected transmitting the ticket

identifier with the transaction request to succeed since transmitting information was a conventional computer process and implementation was within the capabilities of a POSITA, and indeed would be trivial.

204. In my opinion, Szrek also describes that the cash register scans the ticket ***without the use of lottery hardware***. Specifically, Szrek describes "[t]he goal of the present invention is to enable the secure sale of lottery tickets at general retail point of sale (POS) checkout points, such as standard cash registers, and other similar devices" rather than utilizing "relatively high cost in-lane lottery terminals." Ex. 1005, 1:16-32.

205. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that "Szrek describes preprinted ticket 300 with unique identifier 330 that, when scanned at the POS terminal (cash register 230), is communicated in a transaction request to a transaction processor ... that then provides the transaction request to a lottery administration system (game provider 250)" and that the POS terminal is "without the use of lottery hardware." Ex. 1008, 42 (citing Ex. 1005, 5:52-69, 6:28-38).

206. For the term "***via a first secured communication***," Llach discloses that communications into and out of the transaction computer "may be encrypted for added security and/or may utilize a virtual private network (VPN)." Ex. 1006, [0018]. Thus, the Szrek-Llach combination renders obvious this limitation.

**5. 1[d]: (c) receiving, via a second secured communication, by the third-party transaction processor, from the lottery administration system, indication that draw information has been associated with the manufactured, pre-printed, random draw lottery ticket.**

207. In my opinion, Szrek in view of Llach renders obvious this limitation.

208. With respect to the limitation "***receiving ... by the third-party transaction processor, from the lottery administration system, indication that draw information has been associated with the manufactured, pre-printed, random draw lottery ticket***," Szrek discloses that after the game provider (*i.e.* ***lottery administration system***) activates a ticket, it "sends activation receipt info to the cash register" (*i.e.* ***POS terminal***) and that "***only*** an activation receipt for the transaction is printed at cash register." Ex. 1005, 3:53-56. In the proposed Szrek-Llach combination, Llach's "transaction computer" is an intermediary between the game provider and cash register and therefore receives the activation receipt information.

209. In my opinion, the activation receipt is ***an indication that draw information has been associated with the lottery ticket.*** Specifically, Szrek discloses that "[o]nce the ticket 300 is activated, product type 410 ..., the ***original preprinted ticket identifier 330***, activation identifier 430, security codes 440, an activation price 450 and valid ***draw identifier 460, such as draw number or draw time***, are printed on cash register receipt." Ex. 1005, 6:54-59. Because the draw

information are included with the "original preprinted ticket identifier," they are ***associated with the lottery ticket***.

210. I note that in PGR2020-00084, for similar reasons, the Board found that Szrek discloses the '894 patent's limitation of "receiving, by the transaction processor or retailer, from the lottery administration system, indication that draw information has been associated with the pre-printed ticket," because there was no dispute that Szrek discloses that the transaction process "receives activation receipt information (determined draw information) associated with the unique identification information in the form of an "Activation Response" from the lottery administration system (game provider 250)." Ex. 1008, 42. I agree with the Board's conclusion.

211. With respect to the limitation "***via a second secured communication***," Llach discloses that communications into and out of the transaction computer "may be encrypted for added security and/or may utilize a virtual private network (VPN)." Ex. 1006, [0018]. This includes the network communications in the proposed Szrek-Llach combination between the transaction processor and the game provider.

### C. Claim 2

212. In my opinion, Szrek in view of Llach renders obvious this limitation. Szrek provides a number of teachings that the scanned barcode contains unique

product information, *i.e.* unique information about the lottery ticket product. Szrek discloses that the "fixed part of the [pre-printed lottery ticket's] barcode should ***indicate the product type***." Ex. 1005, 6:11-12. Szrek also discloses that "the information in the barcode ... may contain other information such as ***lottery product code, ticket price or other data***." *Id.*, 4:44-46. Along with this information encoded in the barcode, Szrek discloses that the ticket identifier itself (which as discussed above is scanned from the barcode) also contains ***unique product information***. For example, Szrek discloses that "part of ticket identifier 330 could correspond to ***the bet combination*** 350 chosen by the players [or] some element making this ticket unique, such as issued tickets ***sequence counter*** on said self-service terminal 130 or kiosk 130." Ex. 1005, 7:21-31. A POSITA would understand that product type, product code, ticket price, bet combination, or sequence counter are all examples of ***unique product information*** because they are unique information about the product that was purchased, *i.e.* the lottery ticket.

213. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that "we are persuaded that [Szrek's] 'transaction request' received by the transaction processor from a point of sale (POS) system includes 'unique product information associated with the pre-printed lottery ticket,'" a limitation from claim 11 of the '894 patent. Ex. 1008, 56. I agree with the Board's conclusion.

214. Also, with respect to "***over a secure communication channel from the retailer POS***," I refer to my analysis for limitation 1[d], where Llach discloses a secure channel for all communication into and out of the transaction processor. Thus, the Szrek-Llach combination renders obvious this limitation.

**D. <u>Claim 3</u>**

215. In my opinion, Szrek in view of Llach renders obvious this limitation.

216. With respect to the limitation "***wherein draw information is made available on a printed receipt***," as I discussed above for limitation 1[d], the process for activating a pre-printed lottery ticket involves printing a receipt that contains draw information.

217. With respect to the limitation "***by scanning a code on the manufactured, pre-printed, random draw lottery ticket***," Szrek discloses that in order to "activat[e] the lottery ticket 300 via a cash register 230," "[t]he store clerk scans ticket 300 like any other product," which results in a "transactional request to the game provider 250." *Id.*, 6:28-37.

218. In note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 12 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 12 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at

the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**E. Claim 4**

219. In my opinion, Szrek in view of Llach render obvious this limitation.

220. With respect to the limitation "***further comprising receiving unique product information associated with the manufactured, pre-printed, random draw lottery ticket***," I refer to my analysis in claim 2 which discusses how the transaction processor receives unique production information.

221. With respect to the limitation "***wherein the third-party transaction processor provides the transaction requests from plurality of different retailers to a single lottery system***," as I discussed above for limitation 1[b], a single "Transaction Computer" and "game provider system" is used to activate lottery tickets from a plurality of vendors.

**F. Claim 5**

222. In my opinion, Szrek in view of Llach render obvious this limitation. As illustrated in Figure 3 of Szrek, the product information associated with the preprinted lottery ticket includes the game type (bet selections 350, which shows the selected game), wager amount (ticket activation price 380, which shows the amount wagered), and number of wagers (draw info 340, which shows the number of wagers). Ex. 1005, 5:62-6:3.

223. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 15 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 15 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

### G. Claim 6

224. In my opinion, Szrek in view of Llach render obvious this limitation. As I discussed above for limitation 1[c], Szrek discloses that the lottery ticket contains a "unique ticket identifier 330" that is scanned and sent as part of the transaction request.

225. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 15 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 15 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**H. Claim 7**

226. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that "during ticket activation, the game provider system ... verifies if this was a 'legal' transaction." Ex. 1005, 3:46-57. Szrek also discloses that the pre-printed lottery ticket may include "extra security codes so the ticket authenticity may be independently verified" by the lottery administration system. *Id.*, 4:9-18.

227. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 16 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 16 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**I. Claim 8**

228. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the game provider "verifies if this was a 'legal' transaction" by using the "ticket identifier" which "may indicate, in an algorithmic fashion, what transaction was being activated." Ex. 1005, 3:46-57.

229. I note the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 17 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 17 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**J. Claim 9**

230. In my opinion, Szrek in view of Llach render obvious this limitation. Llach discloses that its "transaction computer 150 ... determine[s] whether the stored value card to be activated is eligible for a value added award," by "compar[ing] one or more of the card identification, the terminal identification, vendor identification, and the time and date of the activation request." Ex. 1006, [0029].

231. Szrek does not explicitly disclose (but neither does the patent) a method of associating the pre-printed tickets with a specific retailer such that the identity of retailer activating the ticket could be verified at the POS. However, methods for accomplishing this are well understood and would be obvious to a POSITA if such verification was required. Regardless of the requirement to associate a specific preprinted ticket with a particular retailer, a POSITA would understand that lottery administrators would require some verification that the

submitting retailer was authorized to sell the tickets. Retailers would have undergone a rigorous application process to obtain a Retailer ID in order to participate in lottery sales. Therefore it would have been obvious to a POSITA to modify Szrek to include verification that the retailer submitting the request is authorized to distribute lottery tickets (*product*).

232. I note that in PGR2020-00084, Petitioner provided a similar obviousness argument for a nearly identical limitation in claim 18 of the '894 patent. The Board "f[ou]nd that persuasive evidence supports Petitioner's obviousness contention that, at the time of the invention, a skilled artisan would have known Szrek's validating step 'includes verifying that the product is validly distributed by the retailer.'" Ex. 1008, 59. I agree with the Board's conclusion.

**K. Claim 10**

233. In my opinion, Szrek in view of Llach render obvious this limitation for reasons I explain in Ground 2, since Szrek discloses using age verification.

234. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 19 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 19 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at

the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

### L. Claim 12

235. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that, at the time the ticket is purchased, "[t]he preprinted ticket 300 contains ... bet selections 350" and that "[t]he ticket can be preprinted according to ... a computer generated selections (quick pick)," which a POSITA would understand is a randomly determined lottery number. Ex. 1005, 5:65-6:3, 3:29-31. Szrek discloses that the transaction request includes the bet selections to the game provider. *Id.*, 6:28-38. Szrek also discloses that "the game provider system may learn [a] bet combination from the ticket identifier and authorize this bet." *Id.*, 7:26–28.

236. I note that in PGR2020-00084, with respect to an identical limitation in claim 20 of the '894 patent, the Board concluded that "at the time of the invention, a skilled artisan would have known the transaction processor may provide information to the lottery administration system of randomly determined lottery numbers associated with a pre-printed lottery ticket prior to the time the ticket is purchased at the POS." Ex. 1008, 62-63. I agree with the Board's conclusion.

**M. Claim 13**

237. In my opinion, Szrek in view of Llach render obvious this limitation. As I discussed above for limitation 1[c], the cash register does not use any special lottery hardware.

**N. Claim 14**

238. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the preprinted lottery ticket includes "security codes" and a "barcode." Ex. 1005, 4:9-11, 4:39-47.

239. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 23 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 23 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**O. Claim 15**

240. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the "barcode" may contain a "manufacturer's ID" (first party information) and a "lottery product code" or "product ID" associated with a game provider (second party information). Ex. 1005, 4:40-48.

241. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 24 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 24 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**P. Claim 16**

242. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the "barcode" on the lottery ticket may include an "UPC" (***universal product code***), a "ticket identifier", and "lottery product code." Ex. 1005, 4:40-48.

243. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 25 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 25 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**Q. Claim 17**

244. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the "game provider system could check if the ticket 300 is a winner" and "could say the ticket is a winner and authorize winner payment" using information on the ticket sent in the authorization request. Ex. 1005, 4:45-50. Thus, a POSITA would understand that the ticket contains information used to redeem a winning prize.

245. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 26 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 26 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**R. Claim 18**

246. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the game provider (*i.e.* ***lottery administration system***) will "provide bets information [*i.e.* ***wagers***] to the commercial printer." Ex. 1005, 4:1-6. Szrek also discloses that the game provider assigns a "draw number or draw

time" to the ticket. *Id.*, 6:54-61. Thus, the game provider generates wagers for the ticket, and a draw date is assigned to the wagers.

247. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 27 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 27 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**S. <u>Claim 19</u>**

248. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses the game provider assigns a "draw number or draw time" to the ticket. *Id.*, 6:54-61.

249. I note that the Board in PGR2020-00084 similarly held, and Patent Owner did not dispute, that with respect to an identical limitation in claim 28 of the '894 patent, "Petitioner has established that Szrek teaches or suggests the subject matter of claim[] ... 28 ... and we also determine that a preponderance of evidence shows that those claims would have been obvious to a skilled artisan at the time of the invention in view of Szrek." Ex. 1008, 46. I agree with the Board's conclusion.

**T. Claim 20**

250. In my opinion, Szrek in view of Llach render obvious this limitation. Llach discloses that communications to and from the transaction computer are "encrypted for added security and/or may utilize a virtual private network (VPN)." Ex. 1006, [0018]. Thus, in the Szrek-Llach combination, any communications with the transaction processor are also secured.

**U. Claim 21**

251. In my opinion, Szrek in view of Llach render obvious this limitation. Llach discloses that its system contains "at least one point of sale component 111," which a POSITA would understand indicates that the transaction computer can receive activation requests from one or more retailer points of sale for a retailer. Ex. 1006, [0018]. Szrek discloses that "[t]he present invention enables" "common POS locations" "to be used to sell such lottery tickets," which a POSITA would understand to mean that Szrek supports sending transaction requests from multiple locations of a retailer. Ex. 1005, 1:63-66.

**V. Claim 22**

252. In my opinion, Szrek in view of Llach render obvious this limitation. Szrek discloses that the activation request includes requests for "lotto, 6 specific boards" which a POSITA would understand includes a plurality of different lottery games. Ex. 1005, 3:47-50. For example, one of those lotto games is "lotto game 6

of 49," which a POSITA understands to mean a lottery game involving picking 6 numbers from 1-49. Ex. 1005, 7:23-24.

### W. Claim 23

253. In my opinion, Szrek in view of Llach render obvious this limitation for the same reasons I discussed above in claim 8.

### X. Claim 24

254. In my opinion, Szrek in view of Llach render obvious this limitation for the same reasons I discussed above in claim 9.

## VIII. GROUND 4: CLAIM 11 IS OBVIOUS IN VIEW OF SZREK AND LLACH IN FURTHER VIEW OF GILMORE

255. In my opinion, Szrek and Llach in further view of Gimore render obvious this limitation. Claim 11 recites "The method of claim 1, wherein the information provided to the lottery administration system includes one or more randomly determined lottery numbers generated at the time the manufactured, pre-printed, random draw lottery ticket is purchased at the retailer POS." As discussed above with respect to claim 12, Szrek discloses randomly determining lottery numbers before the ticket is printed, but does not explicitly disclose randomly determining the lottery numbers at the time the ticket is purchased.

256. Gilmore discloses this limitation. Gilmore discloses that "the process proceeds to step 64 which generates a quick-pick transaction and sends the transaction data to a request to the off-site lottery computer 28." Ex. 1029, [0063].

257. It would have been obvious to a POSA incorporate the generation of "quick picks" at the time of purchase into the system of Szrek, specifically by generating the quick pick numbers at the cash register, or in the Szrek-Llach combination, at the Transaction Computer, and include the numbers in the activation request to the game provider, such that the numbers would be associated with the ticket as taught by Gilmore. A POSITA would have been motivated to make the modification in order to 1) distribute the generation of numbers away from the central office as taught by Gilmore; 2) further reduce the need for a kiosk to print quick picks; 3) minimize the in lane wait time associated with the lottery administrator generating the numbers; and 4) provide each quick pick customer access to all the possible combinations of the current draw, a feature not possible when the random draw is already associated with the pre-printed tickets.

258. A POSITA would have had a high likelihood of success given the generation of random numbers (quick pick) was ubiquitous in processors and relied upon well-known technologies.

259. I note that in PGR2020-00084, under similar reasoning, the Board agreed that "Szrek and Gilmore satisfy the elements recited in claims 20 and 43" which have the identical limitation as this claim, "and that a skilled artisan would have had a reason to combine the references' teachings." Ex. 1008, 67. The Board

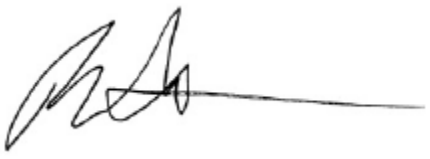
adopted the Petition's arguments which are nearly identical as those presented here. I agree with the Board's conclusion

## IX. CONCLUSION

260. In signing this declaration, I recognize that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

261. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on the information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed: January 17, 2024



Michael Hutton