

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

CASE IPR2024-00465
U.S. PATENT NO. 11,488,451

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INTERACTIVE COMMUNICATIONS :
INTERNATIONAL, INC., :

Petitioner, :

vs. :

BLACKHAWK NETWORK INC., :

Patent Owner.:

- - -

October 16, 2024

- - -

Oral Zoom deposition of
MICHAEL HUTTON, taken pursuant to
Notice, held via Zoom, beginning at
approximately 9:30 a.m., before
Mary Hammond, a Certified Shorthand
Reporter and Notary Public in the
state of Pennsylvania.

Page 2 1 A-P-P-E-A-R-A-N-C-E-S 2 3 BAKER & HOSTETTLER, LLP 4 BY: ROBERT L. HAILS, ESQUIRE 5 1050 Connecticut Avenue NW 6 Suite 1100 7 Washington, DC 20036 8 rhails@bakerlaw.com 9 Attorney for Respondent 10 11 QUINN EMANUEL URQUHART & SULLIVAN, LLP 12 BY: QUINCY LU, ESQUIRE 13 1109 First Avenue 14 Suite 210 15 Seattle, Washington 98101 16 quincylu@quinnemanuel.com 17 Attorney for Patent Owner 18 19 20 21 22 23 24	Page 4 1 - - - 2 DEPOSITION SUPPORT INDEX 3 - - - 4 5 OBJECTIONS 6 Page Line 7 8 DIRECTION NOT TO ANSWER 9 Page Line 10 None 11 REQUEST FOR PRODUCTION OF DOCUMENTS 12 Page Line 13 None 14 15 STIPULATIONS 16 Page Line 17 None 18 19 20 21 22 23 24
Page 3 1 - - - 2 I-N-D-E-X 3 - - - 4 WITNESS: 5 MICHAEL HUTTON 6 PAGE 7 BY MR. HAILS 6, 113 8 BY MR. LU 110, 126 9 10 11 12 - - - 13 E-X-H-I-B-I-T-S 14 - - - 15 NAME DESCRIPTION PAGE 16 17 18 19 20 21 22 23 24	Page 5 1 - - - 2 P-R-O-C-E-E-D-I-N-G-S 3 - - - 4 (By agreement of counsel, the 5 reading, signing, sealing, 6 certification and filing are 7 waived, and all objections as to 8 the form of the question, are 9 reserved until the time of trial.) 10 - - - 11 THE COURT REPORTER: The 12 attorneys participating in this 13 deposition acknowledge that I am 14 not physically present in the 15 deposition room, and that I will be 16 reporting this deposition remotely. 17 They further acknowledge that, 18 in lieu of an oath administered in 19 person, I will administer the oath 20 remotely. 21 The parties further agree that 22 if the witness is testifying from a 23 state where I am not a notary, that 24 the witness may be sworn in by an

2 (Pages 2 - 5)

Page 6 1 out-of-state notary. 2 If any party has an objection 3 to this manner of reporting, please 4 state it now. 5 Hearing none, we may proceed. 6 - - - 7 MICHAEL HUTTON, after having 8 been first duly sworn, was examined 9 and testified as follows: 10 - - - 11 DIRECT EXAMINATION 12 - - - 13 BY MR. HAILS: 14 Q. Good morning, Mr. Hutton. 15 How are you today? 16 A. Good. 17 How are you? 18 Q. Well. Thank you. 19 Will you do me a favor and please 20 state your full name for record? 21 A. Michael Hutton, H-U-T-T-O-N. 22 Q. Fantastic. All right. 23 You and I met for a deposition in 24 another IPR in May of 2024, do you remember?	Page 8 1 take it as an indication that you've 2 understood my question. 3 InComm's counsel may raise -- raise 4 objections to my questions from time to time, 5 but even when an objection is raised, you are 6 required to answer my question unless you're 7 instructed not to answer. 8 And, finally, you are allowed to 9 take a break at any time. If you need one, 10 just let me know. If there's a question 11 pending, I'll likely ask -- I'll -- I'll ask 12 you to -- to answer it before we take the 13 break. 14 Do these sound -- do these ground 15 rules sound okay to you? 16 A. They do. 17 Q. Are you aware of anything that 18 would prevent you from providing accurate 19 testimony today? 20 A. Nothing. 21 Q. And I see on the video that you've 22 brought materials with you to the dep- -- 23 deposition. 24 Will you please describe what you
Page 7 1 A. I do. 2 Q. All right. 3 So you are likely familiar with the 4 deposition process, but just as a refresher 5 I'll go over some basic ground rules. 6 So, today, my questions and your 7 responses will be recorded in a written 8 transcript. It's important that we try not 9 to speak over each other, so that we'll -- 10 we'll have a clear record of today's 11 proceedings. 12 It's also important to give spoken 13 answers to my questions. So if you shake 14 your head -- your head or nod, those are 15 difficult for the reporter to pick up. 16 Similarly, answers like "mm-humm" and "un-un" 17 are extremely difficult to transcribe, so 18 we'd like to have a clear record today. 19 If I ask a question that you don't 20 understand, please let me though and I'll be 21 happy to rephrase it -- 22 A. Mm-humm. 23 Q. -- that you do understand it, but 24 if I ask a question and you answer it, I will	Page 9 1 have in hand? 2 A. I have a copy of my declaration in 3 this matter. I have a copy of my -- I have a 4 transcript of the previous dep- -- deposition 5 in the other matter. I have a copy of the 6 '451 Patent; a copy of the Irwin Patent, 7 which is '984. 8 I have a copy -- copy of the Szrek 9 Patent, which is '497, and I have a copy of 10 the Llach Patent, which is -- I believe it 11 says '768 here, but it's the Llach Patent. 12 Q. All right. 13 There are two Llachs, I think, and 14 you mentioned -- 15 A. Exhibit -- Exhibit-1006. 16 Q. Fantastic. All right. 17 Are those materials ann- -- 18 annotated in any way? 19 A. No, they are not. 20 Q. All right. 21 So during the course of today's 22 deposition, as we did in the prior 23 deposition, I probably will share content 24 with you through this Zoom, and it's

Page 10 1 important that we develop a -- a record that 2 reflects -- that accurately reflects any 3 materials that you consider as you testify. 4 So, for example, if I'm sharing 5 something on the Zoom, but you refer to a 6 paper copy of your exhibit, I'd like to have 7 the record capture that. So, please -- as 8 you -- as you provide your answers, please do 9 your best explain to me where you're looking, 10 so we can be on the same page. 11 I have the same materials that you 12 just referenced, so I'm happy to throw up 13 whatever you're considering on the paper copy 14 up on the Zoom, so we can both look at it 15 together. 16 So will you make that effort for 17 me? 18 A. Yes. 19 Q. Fantastic. Okay. All right. 20 Let's try it now. Give me one second. All 21 right. 22 And we'll start -- you said you had 23 a copy of your testimony in the prior 24 proceeding.	Page 12 1 your testimony from the May 2024 deposition? 2 A. No, I did not. 3 Q. All right. 4 And so we're in sync, during the 5 May 2024 deposition, you answered questions 6 regarding the Szrek reference that's at issue 7 in this IPR; is that correct? 8 A. That's correct. 9 Q. Okay. And you also answered 10 questions regard- -- regarding the Llach 11 reference that's at issue in this IPR; is 12 that correct? 13 A. That's correct. 14 Q. And, again, the Llach that we 15 discussed in the prior deposition is 16 Exhibit-1006 in this IPR; am I correct? 17 A. Yes, that would be the Llachs. 18 Q. Okay. Fantastic. All right. 19 And you said you had a copy of your 20 declaration from this proceeding. I'm going 21 to share on the Zoom with you Exhibit-1003 22 from this IPR, which is your declaration. 23 Is this the -- the document that 24 you reference as having a paper copy in your
Page 11 1 Are we referring to the Exhibit, 2 2048, that I'm sharing on the Zoom? 3 A. Yes, you are. That's what it is. 4 Q. And just so we're -- we're all on 5 the same page, this has a couple of 6 annotations here at the -- at the footer of 7 the document. 8 You can see that this is marked as 9 Exhibit-2044 in the prior IPR 202301235, do 10 you see that? 11 A. I do. 12 Q. Okay. And it's been re-marked for 13 this proceeding as Exhibit-2048 in -- for 14 IPR 202400465; do you see that? 15 A. I do. 16 Q. When was the last time you reviewed 17 this exhibit? 18 A. A couple of days ago, one to two 19 days ago. 20 Q. Okay. When you testified in the 21 May 2024 deposition, did you testify 22 truthfully and accurately? 23 A. I did. 24 Q. And did you notice any errors in	Page 13 1 possession? 2 A. It is. 3 Q. Okay. When was the last time you 4 reviewed this Exhibit-1003? 5 A. Last night. 6 Q. And does Exhibit-1003 describe all 7 of the factual bases for the opinions that 8 you've offered in this IMR? 9 A. Yes, it does. 10 Q. Have you noticed any errors in 11 Exhibit-1003 since you've signed it? 12 A. Just one. 13 Q. What's that? 14 A. In paragraph 1, my rate is quoted 15 at \$750 an hour. It's actually \$375 an hour 16 for this particular engagement. 17 Q. Okay. Are there any other errors? 18 A. Not that I'm aware of. 19 Q. Okay. So I'd like to review your 20 discussion of your qualifications, and I'm 21 going to share starting with paragraph 5 of 22 your declaration. 23 You use a term in this paragraph 24 called, "A non-dedicated Point Of Sales

Page 14 1 system." 2 And I'd like you to explain what 3 does that term mean? 4 A. It -- it means -- in the context 5 of -- of this report, it means a Point Of 6 Sales system that is not necessarily 7 dedicated to one application, in particular 8 the selling of lottery tickets. So it would 9 be a general purpose Point Of Sale for 10 selling any kind of products. 11 Q. Okay. And I assume there would be 12 in this industry, as well, dedicated Point Of 13 Sale systems; is -- is that a correct 14 inference? 15 A. There are lottery -- lottery 16 increase-specific Point Of Sale systems, yes. 17 Q. And -- and is it correct that in 18 that situation a dedicated Point of Sale 19 system would be dedicated to the products 20 that are being sold through it, for example, 21 lottery tickets? 22 A. Yes. 23 Q. Okay. And in paragraph 7, you 24 describe a prototype POS system for	Page 16 1 ticket -- a ticket corresponding to your 2 token would be dispensed from one of the 3 dispensers. 4 It also had the capability of 5 providing online lottery sales to other 6 tokens. It did that in combination with a 7 dedicated piece of lottery hardware. 8 Q. Can you describe what the tokens 9 were? 10 A. They were paper tokens that 11 resembled physical instant tickets, but they 12 were not instant tickets. They were just 13 printed tokens with Bar Codes on them that 14 identified the product that they were related 15 to. 16 So, basically, you would have -- 17 one token would correspond to the actual 18 instant tickets, but those instant tickets 19 were secured in a dispensing device that 20 would -- would be -- only be dispensed when 21 the token was scanned. 22 Q. And -- and did the token -- okay. 23 So let's -- let's back up. I'm sorry, strike 24 that question.
Page 15 1 dispensing lottery products. I'd like you to 2 explain that work. 3 First of all, when was it 4 conducted? 5 A. It was -- it was a while ago, so I 6 can't -- I don't recall the exact year. It 7 was probably somewhere in the early -- around 8 2011, 2012. It was a system for a client of 9 mine that was involved with an instant ticket 10 dispensing system. 11 It was a system where physical 12 indicia representing particular instant 13 tickets but not actually being instant 14 tickets -- they were tokens -- were used 15 to -- you -- you would bring the token to 16 the -- to the Point of Sale, give the 17 merchant at the Point Of Sale -- the clerk at 18 the Point Of Sale the token. 19 The clerk would scan the token, 20 and, then, the instant ticket system, which 21 was preloaded with -- physically preloaded 22 with all the instant -- types of instant 23 ticket games that were for sale at that 24 particular Point Of Sale would be the -- the	Page 17 1 So let me make sure I understand. 2 A customer would -- would bring a token to 3 the POS system, and it would get a dispensed 4 lottery ticket when the token was purchased; 5 is that correct? 6 A. Right. When the token was scanned. 7 Q. "Was scanned," okay. 8 And, then, is the -- is the 9 token -- does it have a one-to-one 10 correspondence with the ticket that is 11 dispensed? 12 A. No. It has a one-to-one 13 correspondence with the type of ticket that 14 was dispensed. 15 Q. Okay. So is it more accurate to 16 say that the token represents the type of 17 ticket that's being purchased, rather than 18 representing an individual ticket that's 19 going to be purchased? 20 A. Exactly. 21 Q. Okay. Okay. 22 So you -- you mentioned that there 23 were POS systems in that system discussed in 24 paragraph 7.

Page 18 1 For the instant tickets, were there 2 any servers at work in that system? Was it 3 a -- was it a network system? 4 A. Yes, it was. 5 Q. Okay. And, so, what was the 6 relationship between the POS system and -- 7 well, first of all, let's strike that 8 question. 9 Please describe the configuration 10 of the server that is used in the -- in the 11 system described in paragraph 7 of your 12 declaration. 13 A. The server was essentially a 14 lottery administration system providing all 15 the functions traditionally provided by a 16 lottery administration system. 17 Q. Okay. And, then, there's a 18 reference to "online games" in this 19 paragraph. Please describe those online 20 games. 21 A. You could also have a -- pick up a 22 ticket for an online game, and there were 23 various different bet combinations you could 24 pick, different tokens representing different	Page 20 1 the successor systems to it may be active. 2 Q. Can you estimate how long it was 3 active? 4 A. I know that the pilot lasted a 5 little over a year. 6 Q. All right. Okay. 7 And, then, let's look at 8 paragraph 8 of your declaration. Here you 9 reference it as a J two -- "JEE-based video 10 lottery game server." 11 Can you describe this system? 12 A. Okay. This -- this system was a -- 13 just I'm trying to -- let me read that, and 14 make sure I'm talking about the same system 15 because there's a second JEE system 16 afterwards. 17 Okay. This was a system for -- for 18 selling electronic instant tickets. It 19 was -- it was very similar to traditional 20 instant ticket systems, except it was all 21 electronic. 22 So it was a system where we 23 designed a secure way to create basically 24 files of electronic instant tickets,
Page 19 1 types of games with different types of bet 2 combinations, and you would bring that token 3 up and what would happen is they would scan 4 that token and instead of dispensing a 5 physical product, the system would print a 6 physical lottery ticket as if it had been 7 printed by a traditional lottery terminal. 8 Q. Okay. 9 A. So that you would print the ticket; 10 it would -- the system would communicate with 11 the lottery central system, which actually 12 records the wager, and, then, it would print 13 the ticket representing the bare instrument 14 for that wager. 15 Q. And can you estimate when that 16 system was launched as discussed in this 17 paragraph? 18 A. I'm thinking 2012. I don't 19 remember exactly. It was a pilot project. 20 It went online in two places. I don't 21 believe they ever rolled it out completely in 22 any jurisdiction. 23 Q. Is it currently active? 24 A. I don't believe so. I think maybe	Page 21 1 basically, the -- the analogue of a -- of 2 a -- you know, preprinted ticket identifies, 3 except it was all electronic. And, then, 4 these electronic instant tickets could either 5 be -- were used to drive lottery slot 6 machines. 7 Are you familiar with what a video 8 lottery is? 9 Q. No. 10 A. Okay. A video lottery is a -- 11 essentially a State-sponsored very highly 12 controlled slot machine-type experience for 13 the player where, you know, essentially you 14 hit a button, and the machine does something 15 and you either win or lose. 16 What this system did was created 17 a -- basically, lists of outcomes. We call 18 them electronic instant tickets because when 19 they were played on a -- on the terminal, it 20 simulated the look of scratching off tickets 21 in some cases. 22 So what -- and the -- why -- the 23 reason that we used a set of electronic 24 tickets like that is so they could know

Page 22 1 exactly the distribution of the prizes, and 2 know exactly what their liability was at any 3 given time. 4 So what the system would do is that 5 any time a terminal needed another 6 transaction, in other words, the player 7 played -- pushed whatever button it was on 8 the video lottery terminal, the video lottery 9 terminal would go into the central system, 10 select one of the pre- -- predesigned, 11 basically, preloaded instant tickets, would 12 use some crypto- -- crypto- -- excuse me, 13 some crypt- -- cryptological technique to 14 ensure that they were securely and -- and 15 unambiguously identified, sent that to the 16 instant game -- to the terminal, which would 17 then decode it, and play the game as was 18 specified in that ticket. 19 Q. Okay. 20 A. So in -- in much simpler terms, 21 what happens is that every time a player 22 would hit a button, a ticket would get pulled 23 out of a preloaded pile of tickets, sent to 24 that machine, and be played on that machine.	Page 24 1 transactions per second. And I think that 2 spec was actually calculated by the, you 3 know, players permitted at a terminal at 4 20,000 gaming machines. 5 Q. And it really would -- would help 6 if you could describe the configuration of 7 the gaming machines. 8 A. The gaming machine was 9 essentially -- it -- they looked a lot like 10 slot machines. Again, if you're not familiar 11 with video lottery terminals, they are 12 similar to slot machines, but they're more 13 electronic. They're less mechanical. 14 I don't -- do not believe there are 15 any completely mechanical lottery video 16 lottery terminals. So they're called little 17 video lottery terminals, and not slot 18 machines. 19 So you would have a number of these 20 video lottery terminals that had a display 21 and a processor and a communications 22 interface in order to be able to display the 23 game played. It had a communications 24 interface that interfaced to a communications
Page 23 1 Q. Okay. So you say that in this 2 paragraph that there were up to 20,000 gaming 3 machines in the system? 4 A. Yes. There was a -- it was 5 actually the Henan -- it was Henan Prov- -- 6 Province in China -- 7 Q. Okay. 8 A. -- which is kind of a, you know, 9 island, not really a desert island, but it's 10 sort of a semi-tropical island, and it's a 11 resort area. And there were a number of 12 casinos -- State-run casinos there, each of 13 them having, you know, some number of 14 terminals up to big -- big gaming halls, 15 which might have a thousand terminals. 16 But over the island there were 17 plural- -- plurality of locations, each 18 having a plurality of terminals, and it 19 supported up to 20,000 of these, and it -- it 20 put the -- for the play to be entertaining 21 for the players, you had to -- there couldn't 22 be any lag between them hitting the button, 23 the player pulling the lever on the slot 24 machine, so we needed -- the spec was 1500	Page 25 1 network, which was secure. 2 They communicated through that 3 secure communication network with the central 4 site and the game server as the system -- the 5 gaming server was the system I was the 6 architect and primary developer for. And 7 there was the central game server, which had 8 the capability of, one, serving these instant 9 transactions every time someone wanted to 10 play a game on one of the terminals, and, 11 also, had utility functions for loading new 12 sets of game transactions in securely. 13 And we developed a lot cryptography 14 around that to -- to make sure that the 15 ticket files could never be changed or 16 modified after they were sold, and we 17 actually had the capacity -- Chinese 18 military's security checks and things, so 19 that was pretty rigorous. 20 So is that a -- do you understand 21 the configuration of the system for that, or 22 do you need more -- 23 Q. I think so, at a high level. 24 Okay. And, so, what kind of server

Page 26 1 resources were needed to process transactions 2 at the 1500 transactions-per-second level 3 that we just talked about here? 4 A. There were several -- a couple of 5 server resources. There was the main game 6 server system. That was actually the JEE. 7 JEE is a -- similar to an operating system, 8 but it's not an op- -- that allows you to 9 build applications. 10 It's -- it's a technology for 11 building something called an application 12 server, which was a way of basically 13 communicating over the web with any number of 14 locations. 15 So -- and it had a -- and -- and 16 back into a database on the back end. So 17 there was the main processor, which contained 18 the -- the -- the files of instant tickets, 19 you know, electronic instant tickets, and 20 that served the terminal network. 21 And, then, there was a 22 high-performance database cluster behind 23 that, and behind that high-performance 24 database cluster was a very high-end	Page 28 1 the computer memory, rather than a 2 traditional relational database at that -- 3 that time, which would also be caching a 4 small amount of data, but reading most of its 5 data from the persistent disc arrays. 6 Q. Okay. So the -- but the disc 7 arrays, the memory, and those features, those 8 are functions that were performed on the 9 server side of this -- of this system; is 10 that correct? 11 A. That's correct. 12 Q. Okay. And, then, I don't remember 13 if I asked you -- when was the work done 14 that's mentioned here in this paragraph 8? 15 A. I believe it was sometime in the -- 16 in the late 2010s, early 20- -- you know, 17 either the late in the first decade, or -- or 18 early in the second decade. They did a 19 number of projects with China, which finally 20 accumulated around 2013, so this was probably 21 around that time, between 2010 and 2013. 22 Q. Okay. And, then, let's look at 23 paragraph 9. 24 A. (Witness complies.)
Page 27 1 performance storage array. 2 Q. And the -- the storage array that 3 you just mentioned, is that a reference to 4 the -- in-memory database that's discussed 5 here in paragraph 8? 6 A. No. 7 Q. What is the in-memory database 8 then? 9 A. The in-memory database was -- was 10 where we kept the -- the transactions for 11 these -- for the ticket transactions. So we 12 would load all of these files in, and, then, 13 we would load the files into memory, so they 14 were -- the tickets were pulled out of 15 memory, not written out -- not right out of 16 the database. 17 And, also, the database cluster was 18 also an in-memory database, meaning that most 19 of the data for the database was in the 20 memory of the -- of the database server, and, 21 then, only later backed up -- written back to 22 the persistent memory of the disc. 23 So the database operated as 24 basically in memory. It stored its data in	Page 29 1 Q. So can I do it without the page 2 break? Yeah. Let me know if this Zoom is 3 too heavy, but I'll show paragraph 9 on the 4 Zoom, which is Pages 2 and 3 of your 5 declaration, a second system. 6 This one identified as a Shanghai 7 welfare lottery. 8 Can you describe this system? 9 A. Yes. This system was a -- a -- 10 essentially a gateway processor for allowing 11 customers to place bets on their mobile 12 phones against the -- an existing lottery 13 system that was operated by one of my clients 14 in -- for the Shanghai Bank high welfare 15 lottery. It was one of the many lotteries 16 that operate -- sports lotteries that 17 operated in China at the time. 18 And what this did was allowed -- 19 it -- it connected through a -- there's a 20 mobile provider who interfaced with all the 21 mobile phones; in other words, they had the 22 actual mobile phone system that communicated 23 with the mobile phones, and that system 24 communicated with the gateway system that I

Page 30 1 developed, which took the request from the -- 2 from a, you know, 20 or 30,000 or -- or 3 lit- -- literally millions -- Shanghai is a 4 very large city -- from the millions of 5 people in Shanghai that were -- wanted to 6 play the lottery, and people in Shanghai also 7 like to play -- play -- bet a lot. But this 8 was a sports betting system, not necessarily 9 a game-of-chance system. 10 So the mobile -- mobile provider 11 would send the transactions through a single 12 channel. All the transaction- -- all the 13 game requests from the mobile applications 14 that they developed, so they had made a 15 mobile application that communicated through 16 their system. 17 They sent that through a single 18 interface through the system that I 19 developed, and the system that I developed 20 converted -- handled those things, converted 21 it into a format that -- that the lottery 22 sys- -- existing lottery system understood, 23 transmitted the transaction to the lottery 24 system, and the lottery system responded to	Page 32 1 purpose computer. 2 Q. Okay. In what timeframe was this 3 work performed? 4 A. This was around -- I think this was 5 around 2013. 6 Q. Okay. And, then, paragraph 10, you 7 developed something for the Pennsylvania 8 Lottery. 9 Why don't you describe what was 10 developed for the Pennsylvania Lottery? 11 A. Okay. This was quite a ways before 12 the other jobs. This was -- lotteries have 13 maintained a number of data processing 14 systems. 15 In addition to the online 16 transaction processing systems that 17 communicate with the lottery terminal 18 network, Point Of Sale network, to sell 19 lottery tickets at the Point of Sale, which 20 is usually contracted out to specialty 21 vendors that -- that design those systems. 22 The lottery also needs a 23 back-office system for maintaining a 24 relationship with their retailers. So this
Page 31 1 the -- took the response from the lottery 2 system, translated it into a format that 3 the -- the mobile system understood, and sent 4 it back to the mobile system and that was 5 also another very high-volume system. 6 I think that one was -- was 7 required to do two to 3,000 transactions a 8 minute -- a second, I'm sorry. 9 Q. Two to 3,000 transactions per 10 second; is that correct? 11 A. Right. 12 Q. Okay. And -- and, again, what kind 13 of server resources were needed for -- for 14 that system? 15 A. Well, for the system that I -- the 16 system that I worked on, that was a -- 17 basically, a high-end standard serv- -- rack 18 server. It was, you know, not a Windows 19 server, but a -- in those days we used 20 essentially industrial strength PCAT clones. 21 So it was a computer that had -- 22 I'm trying to think. It had four CPUs, about 23 128, maybe 12 to 16 gigabits of memory. It 24 was a -- it was a rack-mount utility general	Page 33 1 back-office system was -- essentially started 2 out as a retailer management system. 3 In order to become a lottery 4 retailer in almost any jurisdiction in the 5 United States, there's -- there's a long 6 application process and background checks and 7 site visits and various vetting processes 8 that go on, and there's an application 9 process. 10 And the lottery system -- the 11 lottery administration system separate from 12 the lottery online gaming system takes care 13 of that stuff, so that it was a system for 14 onboarding retailers, managing retailers, 15 handling their banking information, sweeping 16 their bank accounts, if they were -- lottery 17 retailers are required to have a dedicated 18 bank account for lottery sales. 19 So what would happen is that the -- 20 the system would generate the bank takes to 21 sweep their accounts of their -- of their 22 sales, calculate the commissions to leave in 23 their accounts. I'd also generally deal with 24 the retailers as business entities.

Page 34 1 So it was a business system, as 2 opposed to a high technical system, which was 3 the Point Of Sale system; is that clear? 4 Q. I think so. 5 And these functions that you just 6 mentioned, is that what's meant in this last 7 sentence of the paragraph, "back office 8 administration"? 9 A. Yes. 10 Q. Okay. There's a reference to an 11 "IBM WebSphere" in this paragraph. 12 What is that? 13 A. That was -- this -- this paragraph 14 was lifted right out of my CV, and at the 15 time that this work was done WebSphere was a 16 hot product, so that's why I mention it 17 "WebSphere." 18 Q. Okay. 19 A. And, again, it's another 20 application server product. 21 Q. Okay. Can you -- can you put a 22 date with this -- with this work for the 23 Pennsylvania Lottery? 24 A. Yeah. This was probably closer to	Page 36 1 Q. Okay. 2 A. I mean, except in reading the -- 3 the patents and being exposed to this 4 litigation. 5 Q. Okay. So outside of -- of these 6 PGR and IPR proceedings, have you had any 7 exposure to InComm's products? 8 A. I don't believe so, no. 9 Q. How about Blackhawk, have you had 10 any exposure to Blackhawk products in your 11 work? 12 A. Aside from, you know, buying a gift 13 card, you know, as a customer, no. 14 Q. Okay. 15 MR. HAILS: Let's go to Irwin, 16 then, and this is where I'm going 17 to struggle. 18 BY MR. HAILS: 19 Q. Okay. What I've got here on the 20 Zoom -- I may toggle between them, so just 21 for point of reference I've got copies of the 22 entire reference, but I think it will be 23 easier ultimately if we have the -- be able 24 to show the figures side by side with text as
Page 35 1 the turn of the Century, maybe 1999, 2000. 2 Q. Okay. And did -- were there 3 specifications for volume of transactions, 4 for example, in the way that was done for 5 the -- the work for the -- the two Chinese on 6 the systems? 7 A. No, it wasn't -- it wasn't -- there 8 were no specifications like that for this. 9 It was merely -- it needed to be useable from 10 a business sense. So the response time 11 for -- the users of the system were small. 12 Rather than thousands of Point Of 13 Sales systems -- Point Of Sales, it uses a 14 system -- maybe a dozen or so back-office 15 clerical workers using the system, so the 16 system had to be responsible enough for them 17 to handle their workload, but there was no 18 contractual requirement for performance as 19 there are in online lottery systems. 20 Q. Okay. All right. 21 So let's -- oh, so in your work, 22 have you had any exposure to InComm's 23 products? 24 A. I don't believe so, no.	Page 37 1 needed, and, so, I've got a separate file for 2 just the figures. 3 MR. HAILS: And I'm going to 4 show on the Zoom Irwin, which is 5 Exhibit-1030, Figure 1. 6 BY MR. HAILS: 7 Q. Do you see that on the Zoom? 8 A. Yes. 9 Q. All right. 10 MR. HAILS: I'm going to blow 11 it up, so it's a little bit easier 12 to read, all right. 13 BY MR. HAILS: 14 Q. I'd like your understanding, and -- 15 and have you walk us through the -- the 16 system that's shown here in Figure 1. 17 And I'll start with the "Merchant 18 105," which is down on the bottom right-hand 19 corner. 20 Will you explain to me your 21 understanding what kind of equipment is being 22 used at the Merchant location? 23 A. I would assume it would be some 24 brand of standard off-the-shelf Point Of Sale

Page 38 1 equipment. 2 Q. Okay. And, then, Irwin discloses 3 something with Reference 110 called an 4 "acquiring processor"; do you see that? 5 A. I do. 6 Q. Okay. What kind of equipment does 7 the acquiring processor represent? 8 A. I assume they use general-purpose 9 computers, maybe, you know, a cluster of 10 them, several of them, depending on the -- 11 the size of their workload, how many -- how 12 many Points Of Sale they support. 13 Q. Okay. And, then, in the center 14 there's a cloud given the number "120," and 15 it called an "interchange." 16 What kind of equipment does the 17 interchange represent? 18 A. The interchange represents commun- 19 -- lots of communication -- communication 20 networks, and data centers containing 21 comp- -- you know, computer equipment of the 22 state of the art that the data center was 23 built at. 24 So, again, it would be a network of	Page 40 1 cryptographic equipment, and 2 specialty secured routing 3 equipment. 4 They may also use -- let me 5 think. They may also use 6 uninterruptible power supplies and 7 back-up generators because of the 8 mission-critical nature of the 9 work, especially at the 10 interchanges. 11 BY MR. HAILS: 12 Q. And Irwin uses the term "Bank 13 Identification Number." 14 Are you familiar with that? 15 A. I am. 16 Q. All right. 17 What does that term signify? 18 A. It's an ident- -- it identifies the 19 financial institution that has issued a 20 particular credit card. I believe it's the 21 first four or five numbers on any credit card 22 or debit card or gift card, et cetera. It -- 23 it identifies the issuer of the card. It's 24 the bank identifier.
Page 39 1 data centers connected together with a -- 2 with a network. 3 Q. All right. 4 And, now, let's move to the issuing 5 processor, which is shown on the left-hand 6 side, and given number "120." 7 What kind of equipment does the 8 issuing processor represent? 9 A. They would also represent -- they 10 would also be using standard data center 11 equipment of the vintage of whatever the 12 timeframe we're talking about. 13 Q. Okay. Are there any differences 14 between the equipment used at the acquiring 15 processor or the interchange or the issuing 16 processor to your mind? 17 MR. LU: Objection. Vague. 18 THE WITNESS: They may use 19 different brands of computers. 20 They may use slightly different 21 configurations based on the tastes 22 of their engineering staff. 23 They may use -- in some of 24 these cases, they may use specialty	Page 41 1 Q. Okay. And if I use the term, 2 "BIN," B-I-N, as an acronym to refer to the 3 "Bank Identification Number," are you 4 comfortable with that term? 5 A. I am. 6 Q. Okay. And -- and Irwin uses the 7 term "data blob." 8 Are you familiar with that? 9 A. Yes, I am. 10 Q. What does that term signify? 11 A. A data blob is an IT term of art, 12 generally referring to a series of -- of -- 13 of bytes, okay, that have -- that are opaque 14 to the system -- to systems they may pass 15 through, but have some meaning to the end 16 recipient. 17 So it would be, like -- a data blob 18 is kind of like the contents of an envelope, 19 not exactly, but it's like -- it's 20 essentially just a bunch of data -- it's 21 called a blob. And blob is actually an 22 acronym that stood for Binary Large Object in 23 data- -- in database technol- -- in database 24 terms.

Page 42 1 It means just basically a big 2 little blob of data that can contain anything 3 that's necess- -- that you want to put it in, 4 and it's called a "blob" because it basically 5 means, "We don't care what's in it." The -- 6 the contents of it are not important, except 7 to the sender and the receiver of it. 8 Q. Okay. In your answer, you -- you 9 used the term "opaque," and I want to make 10 sure I understand that. And, then, at the 11 end of your answer you said, "The contents of 12 the blob are not important, except to the 13 sender and the receiver." 14 Okay. So does "opaque" mean that 15 it is -- that the data of the blob is not 16 processed substantively by the -- by the 17 processors that it -- it passes through? 18 A. Yes. 19 Q. I'm sorry, I didn't catch that 20 answer. 21 A. Yes. 22 Q. Okay. 23 A. Yes. It means that the data in the 24 blob is not processed by the -- by the	Page 44 1 transactions. 2 In this case, in this diagram, it 3 would be the acquiring processor, and it's 4 called an acquiring processor because it is 5 the -- it is the entity that acquires these 6 transactions from the Point Of Sale network. 7 Q. Does the merchant derive the BIN 8 from this Card 106? 9 A. Yes. 10 Q. Okay. And earlier I think you said 11 that data blob is only relevant to a sender 12 and a receiver; is that correct? 13 A. I said that, yes. 14 Q. Okay. And in this scenario, is the 15 merchant the sender in the transaction 16 illustrated in Figure 1? 17 A. The POS is the sender. 18 Q. And where's the POS? 19 A. The POS equipment that the merchant 20 is standing in front of there -- 21 Q. Okay. 22 A. -- is the sender. 23 Q. Okay. Would you explain how the 24 merchant uses a data blob?
Page 43 1 processes it passes through. It -- it's just 2 a payload is another way of saying it. 3 Q. Thank you. 4 Okay. So, in this example, in 5 Figure 1 of Llach, it shows a consumer, I 6 guess, 100 presenting a card, 106, to the 7 merchant, 105; do you see that at the bottom? 8 A. I do. 9 Q. Okay. Would you explain to me how 10 the merchant uses the BIN in -- in this 11 scenario? 12 A. The merchant doesn't use the BIN, 13 per se. 14 Q. Okay. Is the -- is the BIN 15 relevant at all to the merchant's processing? 16 A. Yes. The BIN is -- the BIN is 17 relevant -- relevant to the merchant's 18 processing because the -- when a -- something 19 containing the BIN, like, a -- say, a gift 20 card, for just sake of example, is presented 21 and scanned for the purpose of its intended 22 purpose, that BIN is read by the merchant's 23 equipment, and, then, forwarded on to whoever 24 the merchant is using to process their bank	Page 45 1 A. The merchant does not use the data 2 blob. The merchant just -- the merchant 3 reads the indicia on the -- on the Card 106, 4 which contains the data blob with his Point 5 Of Sale equipment, which then transmits the 6 -- the data blob using the BIN as the 7 basically address header, just like the 8 letter, and it sends it to the acquiring 9 processor. 10 Q. Okay. So is the data blob 11 contained on the Card 106? 12 A. Yes. 13 Q. Okay. And will you explain how the 14 acquiring processor uses the BIN? 15 A. The acquiring processor uses the 16 BIN to identify the -- the destination; in 17 other words, the dest- -- the destination for 18 that transaction. So it's -- it's basically 19 the BIN says who it's addressed to. 20 The acquiring processor is similar 21 to a post office in figuring out what -- 22 what -- decodes the BIN, and figures it out 23 who the next person to send it to would be, 24 just like the post office processes mail.

Page 46 1 It's analogous to how the post office 2 processes mail. 3 Q. I'm sorry, I didn't catch the last 4 part of that answer. 5 A. I said -- I said, it's -- it's 6 analogous to how the post office processes 7 mail. 8 Q. Okay. And does the acquiring 9 processor use a data blob? 10 A. It -- it passes through the data 11 blob. 12 Q. Okay. But does it -- does it 13 interpret the data blob? 14 A. It does not need to interpret the 15 data blob, but there's nothing precluding it 16 from being configured to recognize certain 17 types of data blobs to certain BINs. 18 Again, I'm -- I'm speculating here, 19 but that's a possibility. The acquiring 20 processor could look at the blob if the 21 application -- if there was a reason for it 22 to, and it was configured to do it, but it 23 doesn't need to as -- as part of what it 24 does.	Page 48 1 A. Well, it would be unlikely since 2 the interchange is more of a generic routing 3 system. However, again, since they're all IT 4 systems and they all can be programmed to do 5 things, it's possible that there could be 6 some custom programming for certain 7 situations, you know, hypothetical situations 8 where the interchange might look at some -- 9 some portion of the data blob, you know, 10 there could be a data blob that's segmented, 11 and, then, it might have a -- a segment in 12 the data blob in the -- basically, that 13 payload data. 14 There could be some payload data 15 that is significant to the interchange 16 processors that it does some other function, 17 but -- but it doesn't need to. So the 18 interchange doesn't need to do anything with 19 the blob to perform its function. 20 Q. Do you recall any discussion 21 from Irwin that describes the Interchange 22 interpreting a blob? 23 A. I don't recall offhand, no. 24 Q. I probably should have asked about
Page 47 1 Q. Okay. And, then, let's talk about 2 the interchange. 3 How does the interchange use the 4 BIN? 5 A. The interchange uses the BIN 6 similar to the way the acquiring processor 7 uses the BIN, except it's closer to the 8 central post office. So whereas the 9 acquiring processor could possibly just do no 10 re-routing, and just say, "Okay. I have a 11 BIN. I'm going to now just" -- "and I 12 have a" -- "and I'm connected to an inter-" 13 -- "interchange," so all the acquiring 14 processor does is record the fact that it 15 passed that -- it routed that transaction, 16 and potentially charged a fee for it. 17 And, then, says that I sent -- and, 18 then, if it's connected to an interchange, it 19 sends all its transactions -- forwards all 20 its transaction onto that interchange, and 21 the interchange figures out how to further 22 route that BIN. 23 Q. Okay. Does the interchange 24 interpret a data blob?	Page 49 1 the acquiring processor. 2 Do you recall any discussion 3 from Irwin that discusses the acquiring 4 processor interpreting a blob? 5 A. I don't recall offhand. 6 Q. All right. Let's talk about the 7 issuing processor. 8 How does the issuing processor use 9 the BIN? 10 A. The issuing processor uses the BIN 11 because it -- it's actually -- the issuing 12 processor now is the final destination 13 because the BIN represents basically the -- 14 the address of the issuing processor. 15 So the ish- -- issuing processor 16 uses the BIN to understand that, "Yes, this 17 was intended for me," and, then, the issuing 18 processor could potentially perform some 19 functionality having to do with -- dealing 20 with banking transactions. 21 I could -- 22 Q. Let's see -- 23 A. One -- one would be -- you know, 24 maybe they would be, you know, charging --

Page 50 1 taking their fee out, doing accounting for 2 the -- for the cardholder's bank, things of 3 that nature. So they have -- might have 4 value-added services depending on the 5 contract with the cardholder's bank. 6 So, again, they could provide 7 value-added services there, but, again, they 8 wouldn't necessarily need to. They basically 9 just need to record the fact that they got -- 10 the issuing processor got the transaction, 11 and, then, it -- it's going to send it to the 12 cardholder's bank, which will finally get it. 13 Q. Okay. Does the Issuing 14 Processor 125 interpret the data blob? 15 A. Well, again, it's the same as 16 the -- the answers to the previous ones. It 17 can if there's some application for it to do 18 so. 19 Q. All right. 20 And do you recall any discussion of 21 Irwin that discusses the issuing processor 22 interpreting the data blob? 23 A. Not offhand. 24 Q. All right.	Page 52 1 A. Right. 2 Q. I said that incorrectly. 3 This particular figure shows 4 application of the interchange to support 5 Quick Pick tickets -- 6 A. That's right. 7 MR. LU: Object. 8 THE WITNESS: Yes, Lottery 9 Online Consumer. 10 MR. HAILS: Great. All right. 11 BY MR. HAILS: 12 Q. And, then, in Figure -- well, I'm 13 going to switch to Figure 12. 14 Will you explain to me what is 15 described here. 16 A. This is -- now, referring to the -- 17 to the text, this is a preprinted substrate 18 with some marketing information on the top 19 and two Bar Codes on it. 20 Q. Okay. What is the significance of 21 the Bar Codes? 22 A. The -- the -- the 202 Bar Code, I 23 believe, is a UPC, and the 201 Bar Code is an 24 encoded -- the encoded information about what
Page 51 1 And, so, Irwin discusses applying 2 this interchange network to support sales of 3 Instant tickets and Quick Pick tickets. 4 Are you familiar that discussion? 5 A. Yes, I do understand. 6 MR. HAILS: Let me see. All 7 right. And, so, I'm going to show 8 Figure 6. 9 BY MR. HAILS: 10 Q. Do you see it on the Zoom? 11 A. I do. 12 Q. All right. 13 And in this particular instance, it 14 shows a Lottery Instant Ticket Consumer 100 15 presenting an Instant ticket to the merchant; 16 do you see that? 17 A. I do. 18 Q. All right. 19 MR. HAILS: And, then, let's 20 skip over to Figure 11. 21 BY MR. HAILS: 22 Q. And this particular figure 23 illustrates application of the interchange to 24 support Quick Tick picks.	Page 53 1 that particular indicia represents. So that 2 would be the unique identifying information 3 for that indicia, along with any other 4 information that the system designer has dec- 5 -- decided to put -- embed in that Bar Code. 6 Q. Okay. 7 MR. HAILS: I'm going to see 8 if I can change the Zoom, so both 9 Figure 11 and Figure 12 are shown. 10 BY MR. HAILS: 11 Q. When the merchant scans these Bar 12 Codes, what does that do to the merchant's 13 POS? 14 A. Well, depending on the -- the POS 15 equipment, the first scan of UPC will tell 16 the -- the POS that this is a lottery 17 product, and to expect a second scan. 18 Q. Okay. And is the Bar Code 201 the 19 second scan? 20 A. Yes, it is. 21 Q. All right. 22 And what does the Bar Code 201 do 23 to the merchant's POS equipment? 24 A. The 201 is encoded, along with

Page 54 1 information -- the 201, along with the UPC, 2 the -- the product I.D., the generic product 3 I.D. from the UPC, and that whatever's 4 encoded in that 201 Bar Code, then, become 5 the payload or the data blob that's sent 6 through the rest of the infrastructure shown 7 above Figure 11 -- 8 Q. Okay. 9 A. -- in Figure 11. 10 Q. And am I correct that the -- the 11 communication from the merchant ultimately 12 arrives at the Issuing Processor 125? 13 A. Yes. 14 Q. Okay. What does the Issuing 15 Processor 125 do with that communication? 16 A. It forwards it on to the -- it -- 17 it may record for billing purposes and -- 18 and/or auditing purposes, and, then, it 19 passes it on essentially unchanged, except 20 for possibly adding metadata such as the 21 retailer identifying information, and it 22 passes it on to a lottery central site. 23 Q. Okay. What does the lottery 24 central site do with this information?	Page 56 1 to the Merchant 205; do you see that? 2 A. I do. 3 Q. Okay. What does the print command 4 cause the merchant to do? 5 A. The print command causes the 6 merchant POS to print information contained 7 in the print command on the cash register 8 receipt. 9 Q. And what is that information? 10 A. It depends on the transaction. In 11 this case, it would be the -- the draw date, 12 the numbers, and any other security 13 information required by the design. 14 Q. Okay. 15 MR. HAILS: I'm going to 16 switch the Zoom to Figure 14. 17 BY MR. HAILS: 18 Q. Do you see that? 19 A. I do. 20 Q. Okay. What does this -- what does 21 -- what does Figure 14 show? 22 A. Figure 14 shows a printed lottery 23 ticket with, you know, marketing logo at the 24 top, the price, the draw date, some
Page 55 1 A. The lottery central site validates 2 it, that it's a -- first, it decodes it. It 3 takes -- it knows what's in the lottery blob, 4 and how to decode -- how to decode the 5 lottery blob. It decodes the lottery blob, 6 figures out what it's being asked to do. In 7 this case, it would be to sell a lottery 8 ticket based on the information extracted 9 from the product information. 10 It then will generate a 11 transaction -- actually, generate a Quick 12 Pick transaction, and record that in its 13 sales database, it's transaction database of 14 live tickets, and associate it with the 15 actual physical identifier of the indicia, 16 and, then, send back -- you know, it would 17 pick the numbers, and send that back, 18 along -- it would pick the draw date and the 19 numbers and, then, send that back through the 20 infrastructure, back to the merchant's POS 21 terminal. 22 Q. Okay. So there's -- in Figure 11, 23 there's a print command shown here, an arrow 24 that extends from the Acquiring Processor 110	Page 57 1 selections, and two Bar Codes. 2 Q. Okay. So there's a -- there's a 3 Bar Code 211, and a Bar Code 212; do you see 4 those? 5 A. Yeah. 6 Q. Will you explain to me what does 7 the Bar Code 211 do -- do in the -- in the 8 merchant system? 9 A. I'm going to refer to Irwin, so I 10 can figure out what -- so I can answer that 11 exactly what -- what Irwin says it is. 12 Q. Sure. And tell me when you're 13 looking, and I'll do my best to throw it up 14 on the Zoom. 15 A. Okay. I'm taking -- okay. 16 So I'm looking at Column 3, around 17 Line 39. It says, "Figure 14 is a front plan 18 view of first representative example of an 19 online game ticket compatible with the 20 interchange network in Figure 11." 21 Q. Okay. 22 A. So it doesn't describe exactly in 23 this what those two Bar Codes are, but I 24 would assume that those Bar Codes correspond

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Page 58 1 to the Bar Codes on the -- on the physical 2 substrate that was presented with the 3 211 UPC -- 4 Q. Okay. 5 A. -- the 212 being the 6 lottery-specific information. 7 Q. Okay. If I can help you out a 8 little bit, maybe Figure 14 is discussed in 9 Column 11 -- 10 A. Yeah. 11 Q. -- of the patent, starting in the 12 first paragraph, starting around Line 20. 13 Maybe take a look at that, and make sure 14 you're comfortable with your -- your answer. 15 A. (Witness reviews document.) 16 Okay. That ess- -- that 17 essentially says what I just said. 18 Q. Okay. So this is going to be 19 difficult to show Figure 14 and Figure 11 20 simultaneously since they're not on the same 21 page. 22 So before we leave Figure 14, let 23 me make sure that I understand this 24 correctly.	Page 60 1 -- the Lot- -- lottery customer would present 2 that ticket, that receipt, to the merchant. 3 The merchant would perform the scans 4 described in the document you have up on the 5 right. 6 Q. Okay. 7 A. The lottery information, which 8 would cause the POS to append the lottery 9 BIN, and the information from the -- scanned 10 off the Bar Code, which would at a minimum 11 have at least the ticket serial number and 12 the online indicia that it was read from in 13 it. 14 That information would be 15 transmitted through the network, through the 16 acquiring interchange to the lottery central 17 site, which would then decode both the ticket 18 serial number to find the matching lottery 19 transaction, and additionally validate that 20 the -- it matched the indicia. 21 And, then, it would read back that 22 transaction with the numbers that were bet in 23 that transaction, compare it to the results 24 of the draw, and decide whether or not it's a
Page 59 1 The 211 Bar Code is a UPC Bar Code; 2 is that correct? 3 A. That's correct. 4 Q. Okay. And the 212 Bar Code, what 5 does that represent? 6 A. That's the lottery information. 7 Q. "The lottery information." 8 Such as what? 9 A. Such as the type of unique 10 identifier for the substra- -- the unique 11 identifier of the substrate that was written, 12 it was read from. The game, the draw date, 13 the -- basically, the -- much of the 14 information that is printed on that ticket. 15 Q. Okay. And in Column 11, it talks 16 about -- starting at Line 20, it talks about 17 validations of the online game tickets; do 18 you see that? 19 A. I do. 20 Q. All right. 21 Are you able to explain to me how 22 the validation process would work using 23 the -- the network of Figure 11? 24 A. Yeah. So the merchant would -- the	Page 61 1 winner. 2 And if it is a winner or a loser or 3 whatever, it would send back the results of 4 that comparison back to the network through a 5 print command to the merchant. 6 Q. Okay. So the -- the system 7 confirms that a lottery ticket is a winner by 8 scanning the ticket in Figure 14; is that 9 correct? 10 A. Yes. 11 Q. Okay. 12 A. And maybe you mentioned this 13 already, but I -- I can't tell -- the lines 14 here, "A," "B," "C," "D," and "E" in 15 Figure 14, what do those represent? 16 They just represent bets; in other 17 words, that's a Mega Bucks draw, so it would 18 be -- I don't remember what the -- I don't 19 remember what the matrix is for -- I don't 20 know what the matrix is, but those are just 21 lottery numbers. "A," "B," "C." "A" and the 22 numbers following it are lottery numbers. 23 "B" and the numbers following it are lottery 24 numbers, and so on.

Page 62 1 And the "PB" on the other side, I 2 assume, stands for "Powerball," so the 3 Powerball pick was 42. 4 Q. Okay. And, so, the "PB," are they 5 part of the set of lottery numbers for each 6 row? 7 A. Yes. 8 Q. Okay. In the -- in the Irwin 9 system shown in Figure 11 -- 10 A. Mm-humm. 11 Q. -- right here, is it possible to 12 determine whether a lottery ticket is a 13 winner from a scan of the card shown in 14 Figure 12? 15 A. It -- it depends. It could be. It 16 depends on how the -- the -- what the lottery 17 system validates. I -- that ticket would 18 have to have a certain unique identifier of 19 the indicia, right? 20 So if the lottery system wants to 21 be able to validate from that, they could 22 certainly look it up by the indicia if they 23 record that with the -- with the transaction, 24 which a seeder would assume that they did --	Page 64 1 A. 220 is a -- I assume -- do you know 2 what, I have to look that up because the 3 diagram's not clear. It's either the -- you 4 know, I don't know what 220 -- 220 is the 5 street vendor, okay. 6 Q. Okay. All right. 7 And am I correct that the street 8 vendor does not work in a brick and mortar 9 retail location? 10 A. You would assume so by the name, 11 "street vendor." 12 Q. All right. Let's go to the next, 13 Column 12. Give me a second, please. 14 MR. HAILS: Okay. I'm going 15 to show an excerpt from a 16 paragraph. 17 BY MR. HAILS: 18 Q. This is Column 12. The paragraph 19 begins at Line 44, and it extends through -- 20 let's call it Line 58; do you see that? 21 A. I do. 22 Q. Okay. There's a -- are you 23 familiar with street sale applications of 24 lottery tickets?
Page 63 1 would understand that they would. 2 So, yes, it would be -- it -- it 3 would -- it would be -- yes, it would be able 4 to validate it from that. If, in fact, the 5 unique identifier was en- -- encoded in that, 6 which I said the seeder would understand that 7 that -- would be motivated to do that. 8 Q. Figure 22 of -- sorry, yeah, 9 Figure 22 of Irwin. 10 Do you see that on the share? I'll 11 maximize it. 12 A. It says "Figure 16" at the bottom. 13 Q. I'm sorry. Figure -- Figure 22. 14 My apologies. All right. 15 Do you see Figure 22 on the Zoom? 16 A. I do. 17 Q. All right. 18 So this figure shows application of 19 the interchange system to a street vendor 20 sale, do you agree? 21 A. I do. 22 Q. Okay. Let's -- well, what does 23 this -- does this "Element 220" refer to -- 24 220 -- "225" -- excuse me?	Page 65 1 A. Yes. 2 Q. Can you describe to me how that 3 works. 4 A. There's a large -- how it works in 5 this case, or in general? 6 Q. Well, Irwin's application of 7 street -- 8 A. Irwin's application. 9 So essentially the -- the vendor is 10 carrying portable Point of Sale equipment, 11 which would most likely consist of some sort 12 of tablet computer, some sort of printing 13 device that is portable, that can be carried 14 by a single person, along with a wireless 15 communication device, say, a wireless hot 16 spot or something, cell phone. 17 Is that your question? 18 Q. Well, and, then -- I don't know. 19 I'm not familiar with this, so I guess I'm 20 struggling for a question. 21 I assume there are not -- there -- 22 there aren't checkout lanes the way that 23 there would be in a -- 24 A. No, the -- the street vendor -- the

Page 66 1 street sales is basically the people who walk 2 around, say, a sports stadium, or outside a 3 sports stadium. This is very popular in 4 Latin American and in southern Europe. They 5 walk around a -- a sports stadium, and they 6 would be basically selling various kind of 7 games. 8 In -- in this case, it's an instant 9 ticket for -- for the purposes of this. So 10 the -- the street vendor has a portable POS 11 equipment and a communications interface that 12 lets him talk to the Point of -- to the Point 13 of Sale network. 14 So the lottery -- the lottery 15 ticket consumer either, you know, picks up a 16 ticket from somewhere around the venue, 17 depending on, you know, if it's, like, a 18 conference kind of indoor kind of thing, 19 they -- they may have these all around, or if 20 he goes to the vendor who's got them laid out 21 across his arm. 22 They do the -- there's the 23 ticket -- there's the tickets laid out across 24 their arm, and the player will pick out a	Page 68 1 show the printing of online at Line 67, and, 2 then, up to the top of Column 16 tickets. 3 A. Right. 4 Q. So online Quick Pick tickets, I 5 guess; is -- is that correct? 6 A. Yes. 7 Q. Okay. And, so, how does this model 8 work for Quick Pick tickets? 9 A. Very similar. What it says here 10 is, "When selling online tickets, the street 11 vendor would either type either the specific 12 way to a Quick Pick request into the touch 13 screen of the portable tablet computer 14 communication device, 221, or possibly 15 utilize a built-in camera to scan bets. In 16 each" -- "any case, the online sale would be 17 paid for either by cash or previously 18 discussed via debt or credit card. Once the 19 transaction was tendered, the online ticket 20 request would be transferred to the lottery 21 central site. The transaction logged on the 22 central database site with a print ticket 23 data packet returned to the portable outer 24 communications device, 221, which is then
Page 67 1 ticket and the vendor will, then, scan that 2 ticket, will pick up the unique indicia from 3 the ticket, transmit it through the issuer 4 inquiry using that BIN routing that we 5 discussed earlier to a lottery central site. 6 And, then, the lottery central site 7 will look that up in its inventory database, 8 since it's a -- it's an instant ticket 9 inventory, and activate that ticket so it is 10 now live and can be paid and it sends back 11 information to the street vendor as to the 12 cost of, you know, what to charge the -- the 13 customer, which is probably the face value on 14 the ticket; and, also, most likely does 15 something to calculate the street vendor's 16 commission on that sale and who the street 17 vendor was and records all of that kind of 18 information as well. 19 Does that explain it? 20 Q. I think so. 21 Okay. And, so, your answer 22 referenced instant tickets. I believe in -- 23 give me one second -- Column 15 says it can 24 be extended to online tickets. It's hard to	Page 69 1 physically printed on the street vendor's 2 220 portable printer 222." 3 Q. So, in this case, the Quick -- the 4 sale -- strike that question. 5 In this case, the street vendor is 6 printing a Quick Pick picket -- strike that. 7 In this case, the street vendor is 8 selling the Quick Pick ticket via his 9 printer; is that correct? 10 A. Correct. And it -- and it allows 11 for either a Quick Pick ticket or the -- the 12 player can pick his numbers on a -- a touch 13 screen, but it's selling an online lottery 14 ticket. 15 Q. And, then, there's a reference to 16 something called a "passive game ticket." 17 A. Mm-humm. 18 Q. Okay. It begins in the same -- 19 this Column 16, roughly at Line 41. 20 What's your understanding of a 21 "passive game ticket"? 22 A. Are you familiar with a raffle 23 ticket? 24 Q. As a consumer?

Page 70 1 A. Yes. A passive raffle ticket is a 2 form of a passive game ticket. So a passive 3 game ticket is essentially a -- a ticket that 4 contains a -- some kind of unique number on 5 it, most likely always shown, not hidden. 6 There might be some hidden validation stuff 7 somewhere. 8 But a passive game is essentially a 9 game where the -- all the -- the tickets are 10 preprinted and serialized. They're then 11 sold. And, then, a drawing is held to 12 determine which of those serial numbers is 13 the winner, or -- or, you know, in cases of 14 First, Second, Third prize, which of a number 15 of tickets is the winner. 16 But it's passive in that there's no 17 gener- -- everything is generated statically. 18 There's -- the numbers are all on the tickets 19 to start with, and you -- you know, you 20 basically buy a ticket that has a serial 21 number on it and if your serial number is 22 picked, you win, so that's a passive game. 23 Q. Okay. 24 MR. HAILS: All right.	Page 72 1 MR. HAILS: Give me a second, 2 and I'll resume the Share. 3 BY MR. HAILS: 4 Q. On the Share, I'm sharing the cover 5 of the Llach reference Exhibit-1006; do you 6 see that? 7 A. I do. 8 Q. All right. 9 Let's switch to the text. I will 10 share with you Llach's Background Discussion, 11 and I'd like you to focus on paragraph 3B of 12 the "Background"; do you see that? 13 A. I do. 14 Q. Do you agree with the 15 characterization of the market for 16 store-value cards that is represented in 17 Llach's paragraph 3? 18 A. Give me one second to read it. 19 Q. Sure. 20 A. (Witness reviews document.) 21 It makes sense. 22 Q. Maybe -- will you explain to me 23 what is your view of the term "stored value 24 cards" as represented in this paragraph?
Page 71 1 I got a little off track from 2 my outline. 3 Why don't we take a -- a 4 break. I'll see if I can get 5 organized on the break to give 6 ourselves a little bit of flow. 7 Can we break until 10:50 8 Eastern? Does that work for you 9 sometime? 10 THE WITNESS: Yep, 10:50? 11 MR. HAILS: 10:50. So seven 12 minutes. 13 MR. LU: Sure. 14 THE WITNESS: That's fine. 15 MR. HAILS: All right. 16 Thank you. 17 - - - 18 (Whereupon, there was a brief 19 recess held off the record at 10:43 20 a.m. EST.) 21 - - - 22 (Back on the record at 10:51 23 a.m. EST.) 24 - - -	Page 73 1 A. A stored value card is a -- a card 2 that can record a bal- -- a financial 3 balance, hence the term "stored value." It 4 stores a value on it. 5 Q. Okay. Is a -- is a credit card an 6 example -- an example of a stored value card? 7 A. No, it's not. 8 Q. Okay. How do they differ? 9 A. A -- a credit card is a -- a card 10 that's used to -- to conduct credit 11 transactions; in other words, you -- you 12 purchase an item, and you are charged for 13 that item and you -- and the credit card 14 provider fronts you the money for it, and 15 bills you for it later and that's how a 16 credit card works. 17 Q. Is a debit card a val- -- an 18 example of a stored value card? 19 A. No, it's not. A debit card is a -- 20 a card -- again, it's another payment 21 instrument, but it's linked to your bank 22 account, so that the value is stored in your 23 bank account, and it's always referenced to 24 your bank account.

Page 74 1 Q. Okay. Can you give me some modern 2 commercial examples of what might be a stored 3 value card? 4 A. Gift card, an American Express gift 5 card. 6 Q. Okay. 7 A. A restaurant gift card. 8 Q. And, so, I -- I could buy, for 9 example, an American Express gift card at 10 \$100, and, then, that card has a value of 11 \$100 in -- in that example; is that correct? 12 A. Correct, right. 13 Q. All right. 14 How about things like Starbucks 15 cards, or -- or things from different 16 merchants? 17 A. They are all stored value cards -- 18 Q. "The marketplace may be filled with 19 many types of stored value cards offered by 20 numerous card issuers." 21 Do you see that in the discussion? 22 A. I do. 23 Q. Okay. Was it common to have POS 24 systems that could activate the different	Page 76 1 Q. I see. 2 And, so, I as a purchaser of that 3 American Express gift card could redeem for 4 payment at -- at several merchant locations; 5 is that correct? 6 A. Right. 7 Q. All right. 8 I would like to switch to Szrek in 9 a moment -- for a moment, and go to -- let's 10 see if I have this right. 11 Okay. 12 MR. HAILS: Column 2 -- give 13 me a second, please. The Zoom is a 14 killer on my end. 15 BY MR. HAILS: 16 Q. But how to -- starting at Line 36, 17 there's a paragraph that starts -- starts 18 with "Stores to sell merchandise"; do you see 19 that on the Zoom? 20 A. Yes. 21 Q. Okay. This refers to merchandise 22 requiring some type of activation. It's not 23 functional until activated, and it refers to 24 phone cards in the third line; do you see
Page 75 1 stored value cards that were offered by 2 different card issuers, was it common at the 3 time of Llach? 4 A. It was common? 5 Q. Okay. 6 A. Yes, it was. 7 Q. Okay. In here it says that, "Some 8 cards were tailored to be redeemed from the 9 single merchant"; do you see that? 10 A. I do. 11 Q. And was that a common application 12 of stored value cards at the time? 13 A. Yes. 14 Q. Okay. And, then, you say -- 15 A. Yes. 16 Q. And, then, it says here, "Other 17 cards may be redeemed by several merchants"; 18 do you see that discussion? 19 A. Yes. 20 Q. Okay. And can you give me an 21 example of an application where a -- a single 22 card would be redeemable by several 23 merchants? 24 A. American Express gift card.	Page 77 1 that? 2 A. I do. 3 Q. Can you explain to me how a cash 4 register would activate a phone card? 5 A. The phone card would be taken -- 6 would -- the customer would take the phone 7 card, bring it to the register. The cashier 8 would scan the code on either -- actually, 9 scan or read a magnetic stripe, or somehow 10 read the information on that card. 11 That card would be -- that 12 information would be sent through their POS 13 system to whoever their -- either their 14 acquirer was for those kind of transactions, 15 or to the -- the actual issuer of the card to 16 activate the card. 17 And, then, that issuer would then 18 record that that card was active, and what 19 value it was active for, and, then, the card 20 would be active. 21 Q. Okay. And was it common at the 22 type of Szrek to have POS systems that were 23 capable of activating phone cards? 24 A. No.

Page 78 1 Q. Okay. And, then, Column 7 of 2 Szrek -- 3 A. Right. 4 Q. -- it talks about handling 5 ticket -- instant ticket sales at a POS, and 6 this is a -- I'm showing Column 7, the 7 paragraph beginning at Line 5; do you see 8 that? 9 A. Yes. 10 Q. Okay. Can you explain to me how a 11 cash register would activate an instant 12 ticket in the Szrek system? 13 A. So the instant -- so indicia on the 14 instant ticket would be scanned and sent to 15 the instant tickets -- sent through the POS 16 network to the instant ticket -- instant 17 ticket vendor, or the lottery administration 18 system, one or the other. 19 The instant ticket would be looked 20 up in the instant ticket database for that 21 type of game and would be recorded as sold 22 and, then, the real authorization would be 23 sent back to the POS that the transaction 24 succeeded.	Page 80 1 And, then, they could also balance 2 their accounting between the lottery who's 3 providing the tickets and the retailer who's 4 selling it. So that's integrated accounting. 5 Since there's a record of every ticket sold, 6 it facilitates integrated accounting. 7 Q. I see. 8 So is there -- is there an 9 accounting operation performed on the cash 10 register? 11 A. A very simple kind of cash 12 register-type of accounting functions where 13 it comes up with the running total of what 14 you bought and what was -- you know, the 15 sales at the register, whatever's required 16 for them to be able to balance out the drawer 17 at the end of the shift, or at the end of the 18 day. 19 Q. Okay. 20 MR. HAILS: Maybe we should 21 show Szrek's figure, just to make 22 sure we're on the same page. Just 23 give me a moment. All right. 24 I'm doing another one of my
Page 79 1 And, then, that instant ticket 2 would then be live. And -- then, be live and 3 could be -- if it was a winner, could be 4 cashed. 5 Q. There's a reference to integrated 6 accounting in this paragraph at the end; do 7 you see that? 8 A. Right. 9 Q. How does that cash register handle 10 integrated accounting? 11 A. Well, it's not necessarily cash 12 register handling integrated accounting, 13 because the -- every instant ticket that's 14 sold through this method is able to record 15 it, we can have a very accurate inventory -- 16 control of the inventory of the in- -- 17 instant tickets and how many were sold 18 because each one that's sold is recorded. 19 So we can integrate the instant 20 ticket accounting with the other accounting. 21 So, for the cash register, we would be just 22 basically saying, "Okay. I sold an instant 23 ticket for this much," so we can balance the 24 register drawer.	Page 81 1 split screens. I think I will show 2 Figure 2 of Szrek on my right. 3 BY MR. HAILS: 4 Q. Do you see that of Column 7? 5 So in Figure 2, you see the cash 6 register or the store back office and the 7 game provider. 8 Do you see those in -- in the 9 figure? 10 A. I do. 11 Q. Okay. And I guess I'm trying to 12 figure out, are there accounting functions 13 performed at any or all of those components. 14 So can we walk through these pieces and just 15 figure out where and what kind of accounting 16 would be performed? Let's start with the 17 cash register. 18 Is there accounting -- an 19 accounting function performed at the cash 20 register for activation of, for example, 21 instant tickets? 22 A. Yes. 23 Q. Okay. 24 A. In -- in view of -- of the text on

Page 82 1 the left, each instant ticket sold is sold 2 just like any other product. So it would be 3 accounted for just like a bottle of Cheerios, 4 a box of Cheerios, and everything else sold 5 at that register, so that you could -- excuse 6 me, balance the drawer. 7 Q. Okay. And, then, I assume there's 8 also an accounting function performed at the 9 game provider; is that correct? 10 A. Yes. The game provider is 11 accounting for the tickets that are sold at 12 that retailer. 13 Q. Okay. And, then, is there 14 accounting function performed at the store 15 back office? 16 A. Yes. There's an accounting 17 function for the store back office that can 18 provide for the auditing to be able to bal- 19 -- again, balance the drawer, and also to 20 reconcile sales of lottery products with the 21 game provider. 22 Q. Okay. And, so, it's not clear to 23 me. 24 Are the accounting functions	Page 84 1 Would the auditing functions of a 2 cash register and the store back office vary 3 from each other to process instant tickets? 4 A. I don't believe so, except that the 5 cash register may not care that -- that an 6 instant ticket is any different than a bag of 7 potatoes; whereas, the store back office 8 needs to reconcile with the game provider 9 because it's an agent, okay. 10 So it's -- it's selling product -- 11 it's selling product as an agent to the 12 lottery, so it needs to reconcile its 13 accounting with the game provider. So there 14 would be additional processing there to 15 reconcile lottery ticket sales with the game 16 provider. 17 Q. Okay. What kind of accounting 18 functions would be performed for a physical 19 ticket? I'm -- I'm referring to, for 20 example, the physical Ticket 300 shown in 21 Figure 1, above Figure 2. 22 A. Well, it would be -- again, it 23 would be just a -- the cash register would -- 24 would record it on its -- on its security
Page 83 1 performed at the cash register and the store 2 back office different from each other, or the 3 same? 4 A. They're similar but not -- not 5 necessarily identical. 6 Q. Okay. And, then, how would they 7 differ? 8 A. Well, it might be simpler at the 9 cash register where the cash register would 10 just be kept -- keeping a running total of, 11 you know, UPCs and prices that were sold. 12 The store back office talks to a plurality of 13 cash registers, all right, and it also takes 14 care of information that's like whose shift 15 -- what was sold on what, et cetera, cash -- 16 takes care of cash, how much cash should be 17 in the drawer, how much cash I've got to put 18 back in the drawer, things like that. 19 So there would be a little bit more 20 value added at the store back office than at 21 the cash register in any Point Of Sale 22 system. 23 Q. Okay. And, so, how would the 24 cash -- well, strike that question.	Page 85 1 tape. I forget the exact name. The tape 2 that it keeps in there, not the receipt tape, 3 but the recording tape, which is electronic 4 now, I believe. 5 There -- can you ask the question 6 again? I think I got lost a little bit. 7 Q. Okay. So in the prior question we 8 were referring to the sales of instant 9 tickets that's referenced here in -- in this 10 Column 7. 11 A. Okay. I got you now. 12 Q. But, of course, Szrek describes 13 processing of something they call a 14 preprinted Ticket 300. And one example of it 15 is shown in Figure 1 of Szrek. 16 A. Yeah. 17 Q. And what -- what I'm trying to find 18 out is, do the -- does the audit function for 19 a preprinted ticket differ from the audit 20 functions that are performed for an instant 21 ticket? 22 A. No, not -- not substantially, 23 except that they're different -- different 24 products, and they would be in different

Page 86 1 accounting buckets. 2 Q. Okay. And, so, you had explained 3 the audit functions that are performed by the 4 cash register and the store back office for 5 an instant ticket. 6 Is it correct that those audit 7 tickets also perform for a preprinted ticket? 8 A. Yes. 9 Q. Okay. And, then, do the audit 10 functions differ for activations of phone 11 cards that were discussed in the -- in the 12 background of Szrek? 13 A. Again, not substantially, except 14 that those things would go in a different 15 accounting buck- -- buckets, and you would 16 presumably have to reconcile with the 17 provider of the phone cards. 18 Q. Okay. And the reconciliation with 19 the provider of the phone cards, is that a -- 20 a function that would be ascribed to the 21 store back office? 22 A. Yes. 23 Q. Okay. Let's go to your 24 declaration.	Page 88 1 ordinary skill in the art; do you see those? 2 A. Yes. 3 Q. Okay. One is to distribute the 4 generation of numbers away from the central 5 office, as taught by Gilmore. You suggest 6 that it could be performed by the cash 7 register, or the transaction computer to do 8 so. 9 What are the advantages of moving 10 the random-number generator function of a 11 lottery ticket system to, for example, the 12 cash register? 13 A. You would have a more even 14 distribution of the random pick numbers than 15 if they were picked by single pseudo numb- -- 16 single pseudo random-number generator. Yeah, 17 there you go. 18 Q. Okay. I don't quite understand 19 that. 20 Would you explain how a pseudo 21 random-number generator operates? 22 A. A pseudo number -- random number 23 generates by -- randomly, it generates a 24 sequence of numbers from a seed, and given a
Page 87 1 MR. HAILS: Give me one 2 second. This'll be annoying. 3 One of the beautiful things 4 about Zoom is that all of the 5 controls of Zoom overlap with the 6 controls for Adobe, which makes it 7 harder to access the buttons. 8 Okay. So we are switching to 9 your declaration. 10 BY MR. HAILS: 11 Q. This is Exhibit-103, and we're 12 looking at paragraph 257 of that declaration; 13 do you see it? 14 A. I do. 15 Q. All right. 16 And here we were talking about 17 modifying the Szrek system to provide 18 generation of Quick Pick -- Quick Pick 19 numbers at the cash register, or at a -- a 20 transaction computer; do you see that? 21 A. I do. 22 Q. All right. 23 And you describe a variety of 24 motivations that are provided to a person of	Page 89 1 -- one seed -- given any particular seed, the 2 sequence of numbers can be predicted, which 3 is why it's called "pseudo random." It's not 4 actually random. 5 And, so, if you had only one 6 random-number generator and one seed, you 7 would have a predictable -- predictable set 8 of numbers, and you might not actually 9 generate a representative distribution of 10 those numbers that sim- -- that would be 11 generated by player population playing at 12 terminals, picking their own numbers. 13 You would have -- you would be 14 better to generate a more even distribution 15 because you had a whole -- a whole bunch of 16 distinct random-number generators all 17 starting from a different seed, so you'd have 18 a much more randomized and even distribution. 19 Also, it would put less load on the 20 central system because, as I just mentioned, 21 if you have one random-number generator 22 because it's a pseudo random-number 23 generator, if you know the seed, you can 24 predict the sequence of numbers.

Page 90 1 If you were doing an essential, you 2 would -- you would want to have more than one 3 random number sequence being generated, so 4 you can distribute a more even number, and it 5 would be more complex. So having it 6 generated at the Point Of Sale would be more 7 easily -- more closely simulate the numbers 8 being played by players while still 9 generating an even distribution of wagers. 10 Q. So I've -- I've seen pseudo random 11 generators in other contexts, and I want to 12 make sure I understand. And I do understand 13 that pseudo random-number generation may have 14 a predictability element to it. 15 But are the numbers themselves that 16 are generated unevenly distributed in a 17 random-number generator? 18 A. Ideally, after -- an ideal -- a 19 good ran- -- pseudo random-number generator 20 should generate a completely flat 21 distribution to give you a rough example. 22 Q. Okay. And does that -- is -- does 23 that occur in a lottery system? I would 24 expect yes.	Page 92 1 random number -- to try each random-number 2 generator, and it takes some amount of memory 3 to go -- to support the random-number 4 algorithm. 5 Q. Okay. And is generating random 6 numbers a -- a resource-expensive task? 7 A. Depending on the algorithm, it can 8 be. 9 Q. Okay. If you were applied to a 10 Point Of Sale terminal, do all lottery 11 tickets use -- excuse me, scratch that. 12 Do all lottery ticket products use 13 the same random-number generators? 14 A. No. 15 Q. Okay. You just said they have to 16 be certified in some manner; is that correct? 17 A. Yes. 18 Q. Okay. So different product vendors 19 will have to certify that their random-number 20 generators meet certification requirements? 21 A. Yes. 22 Q. Okay. And, so, if they -- if the 23 random-number generator were to be ported 24 into a cash register, the cash register would
Page 91 1 A. In a lottery system, the -- the 2 random-number generators are very, very 3 sophisticated, and are tested, in fact, with 4 the network to ensure that they provide an 5 even -- even distribution, and some 6 implementations in the past have actually 7 been shut down because that -- they were -- 8 they weren't generating predictable sequence 9 of numbers. So the system's designed to 10 generate an even distribution. 11 Q. Okay. And, then, you -- part of 12 your answer referred to load on a server. 13 Will you explain that concept to 14 me. 15 A. Well, load on the server is -- 16 obviously, load on the server is the number 17 of computations it's being asked to perform, 18 as well as the amount of data it's expected 19 to handle simultaneously, the memory. 20 So the more functions you ask a 21 server to do, specifically adding more 22 random-number generation pieces, that 23 increases the load on the server because it 24 requires computer resources to generate each	Page 93 1 have to have functionality to perform each of 2 the random-number generation functions of 3 each of the products that it supports; is 4 that correct? 5 A. Right. But the -- yes, it would. 6 Yes. 7 Q. Okay. What's involved in 8 programming a cash register to generate 9 random numbers for a Quick ticket -- Quick 10 Pick ticket? 11 A. You would need to -- first of all, 12 it would need to be a sophisticated-enough 13 cash register that it can be, in fact, 14 programmed in a -- in a general way. 15 And, then, you would need to 16 program the random-number algorithm into -- 17 you would need to add a lottery function 18 module to the software in the -- in the cash 19 register, and part of that lottery function 20 module would be the random-number generators. 21 So you would have to write that 22 piece of software, and, then, integrate it 23 with the cash register software. 24 Q. And that process would have to be

Page 94 1 repeated for the different products that the 2 cash register supports? 3 A. No. You could probably write -- 4 depending on the -- the jurisdiction and the 5 games and the exact circumstances, you might 6 be able to get away with a single 7 random-number generator because you're only 8 generating Pick 3s or Pick 4s, something like 9 that. 10 Q. I -- I didn't quite understand that 11 answer, so I want to make sure that -- that 12 we're on -- on the same page. 13 If we have a cash register that 14 supports four different Quick Pick products, 15 is it correct that the cash register would 16 have to have the random-number generator 17 algorithms for each of those four products? 18 A. It -- it could, but it does not 19 necessarily have to. It depends on the 20 implementation and the requirements. 21 If there was a requirement that 22 the -- that they use different random-number 23 generators, then, they would need to. But if 24 it's not a -- not a requirement that they use	Page 96 1 Q. Okay. And if a certifi- -- sorry, 2 scratch that question. 3 And if a POS system is configured 4 to provide random-number generators for four 5 different products, would it not have to meet 6 the certification requirements for each of 7 those products? 8 A. It could be possible to certify a 9 random-number generator with any number of 10 products. So if I -- if I -- right. I just 11 need to certify my random-number generator. 12 So if the requirement is that I 13 need to generate random numbers for three 14 different products, then, I would need to 15 certify that my random-number generator was 16 sufficient for the three products that it's 17 being applied to. 18 I would certify for those three 19 products. It would have to be certified 20 to -- to generate random numbers for those 21 three products. 22 Q. Okay. And -- and the cash 23 registers are maintained by the retailers in 24 which they are used; is that correct?
Page 95 1 different random-number generators, then, you 2 could certainly use a single random-number 3 generator to generate all of them. 4 Q. And I'd like you to please explain 5 how that relates to your answer about 6 certification of random-number generators 7 earlier. So let's -- let's take this piece 8 by piece. 9 First, I thought you had explained 10 that providers of these lottery services have 11 to certify that their random-number 12 generators meet certain requirements; is that 13 correct? 14 A. Correct. 15 Q. Okay. And -- and as part of that 16 certification, the distribution of randomly 17 selected numbers is a requirement; is that 18 correct? 19 A. That's correct. 20 Q. Okay. And, so, if those 21 random-number generators, then, are reported 22 to a cash register, would the same 23 certification requirements apply? 24 A. Presumably. I would say so, yes.	Page 97 1 A. Or the vendor of the cash register 2 systems. 3 Q. Okay. And, so, who would perform 4 the -- the re-programming of the cash 5 register in your hypothetical? 6 A. Even the cash -- probably, the cash 7 register vendor in most cases. 8 Q. In your hypothetical, the vendor is 9 distinct from the administrator of the 10 lottery service; is that correct? 11 A. Yes, the cash register vendor, 12 you're referring to? 13 Q. The -- correct. 14 A. Yes, they're distinct. 15 Q. Okay. So in your hypothetical, the 16 cash register vendor needs to generate 17 programming to support however many lottery 18 systems -- scratch -- scratch that. 19 In your hypothetical, the cash 20 register vendor needs to generate programming 21 to support -- many lottery products are going 22 to be supported by the retailer; is that 23 correct? 24 A. If they're going to use Quick Picks

Page 98 1 that need to be certified, yes. 2 Q. Okay. 3 MR. HAILS: Gilmore, I want to 4 share -- all right. 5 I'm going to to switch to a 6 different reference, Gilmore. 7 BY MR. HAILS: 8 Q. This is Exhibit-1029. And in the 9 Screen Share -- I have the split screen going 10 with Gilmore's cover on the left, and 11 Figure 1 from Gilmore on the right; do you 12 see that? 13 A. I do. 14 Q. Okay. And let's look at Figure 1. 15 The -- the reference number is 8, 16 that are shown here in this circle by the POS 17 terminals; is that correct? 18 A. I don't know. I need to look at 19 the text of Gilmore. 20 Q. Not a memory test. I'm happy to -- 21 A. All right. 22 Q. -- have you go through it. 23 Are you looking through your copy 24 on the --	Page 100 1 Q. Okay. And he's got a plurality of 2 POS terminals, and they're assigned from a 3 reference manual numeral 8? 4 A. Yes. 5 Q. All right. 6 And it's -- and they're -- they're 7 shown in basically this ring arrangement. 8 Let's see, two, four, six, eight, ten. 9 I see 11 POS terminals; do you 10 agree? 11 A. Yes. 12 Q. All right. 13 And, then, there's this dash box 14 down here on the bottom of the figure, and it 15 given reference numeral "12" with an arrow; 16 do you see that? 17 A. Reference number 12? 18 Q. Right. 19 A. Oh, there, yep. Okay. 20 Q. Yeah. All right. 21 And scrolling down to paragraph 42 22 of the text, it calls number "12" "a lottery 23 system controller"; do you see that? 24 A. I do.
Page 99 1 A. If you could find it, it would be 2 easier to read it up there, but... 3 Q. Yep. Let's see. 4 MR. LU: He doesn't have a 5 copy in front of him. 6 MR. HAILS: I see. Okay. 7 Thanks. 8 Okay. 9 MR. HAILS: So I'm going to 10 throw up Gilmore starting with the 11 detailed description that you 12 mentioned, and I've got 13 paragraph 39 here on the left, and, 14 again, I'm going to try to Zoom in 15 on Figure 1 a little bit, so it's 16 easier to see. 17 BY MR. HAILS: 18 Q. Okay. So let's walk through it. 19 He refers to a Point Of Sale system 20 using Number 7; do you see that? 21 A. Okay. 22 Q. And that basically refers to the 23 whole setup in Figure 1; you agree? 24 A. Yes.	Page 101 1 Q. Okay. So what's your understanding 2 of the lottery system controller in this dash 3 box in Figure 1? 4 A. That is a -- a dedicated lottery 5 system processor that's adjacent to an 6 interface with the lottery POS system in 7 order to find lottery functions and gateway 8 functions to the lottery system. 9 Q. Okay. And let me doublecheck this. 10 I can't remember the exact terminology, but 11 there's a "28" somewhere in here. 12 So I've scrolled to paragraph 48 of 13 Gilmore. It calls Number 28 an "offsite host 14 lottery computer"; do you see that? 15 A. Yes. 16 Q. Okay. And you were talking about 17 gateway functions and transmission functions 18 with a lottery system in your prior answer. 19 Is -- is that lottery system 20 Element 28 in Figure 1? 21 A. Yes. 22 Q. Okay. 23 MR. HAILS: Let's see. 24 Paragraph 63 -- paragraph 63.

Page 102 1 BY MR. HAILS: 2 Q. This is Gilmore's discussion of 3 generation of random play numbers; do you see 4 that figure in -- in paragraph 63? 5 A. Yes. 6 Q. All right. 7 Paragraph 63 refers to Figure 6A, 8 right? 9 A. Yep, 6A and 6B. 10 Q. 6A and 6B. 11 And 6A shows an algorithm that's 12 being performed at the lottery system 13 controller; do you agree? 14 A. Yes. 15 Q. Okay. And Figure 6B shows an 16 algorithm that's being performed at the 17 lottery central system; do you agree? 18 A. Yep. 19 Q. Okay. 20 MR. HAILS: I'd like to go to 21 your declaration one more time. 22 Hold on one second. 23 BY MR. HAILS: 24 Q. If you look at -- this is Page 74	Page 104 1 Szrek -- here we go -- I'd like to generate 2 a -- yeah, pictorial representation of this. 3 So if I add a box, call it a 4 transaction computer, and I put it with 5 arrows connecting the cash register to the 6 game provider, does that accurately represent 7 the modification that would be performed to 8 Szrek's system -- 9 A. No. 10 Q. -- that's represented in 11 paragraph 180? 12 A. No. 13 Q. All right. 14 How would you modify this drawing? 15 A. I would put the -- your new box 16 in-between the store back office and the game 17 provider. 18 Q. Oh, I see. All right. 19 And I'd like to put an arrow to 20 show communication flow. And originally I 21 had it extending from the cash register to 22 the box; and, then, from the new box to the 23 game provider. And I'd like to make sure 24 that I show communication flow accurately,
Page 103 1 of your declaration, Exhibit-1003, and 2 paragraph 180. 3 And this is your rationale to 4 combine Szrek and Llach; do you see that? 5 A. I do. 6 Q. Okay. I'd like to -- here you 7 say -- 8 MR. HAILS: And I'm going to 9 bring up Szrek's figures. 10 BY MR. HAILS: 11 Q. In your opinion, POSITA would have 12 found it obvious to modify Szrek's system for 13 activating lottery tickets to incorporate 14 Llach's teachings of an intermediary 15 transaction computer between Szrek's cash 16 register and the game provider systems. So 17 I'd like to make sure I understand how that's 18 going to work in the context of Figure 2. 19 You say you're going to add an 20 intermediary transaction computer between the 21 Cash Register 230 and the Game Provider 22 System 250; is that correct? 23 A. Yes. 24 Q. Okay. So if I add a box to	Page 105 1 as -- as you expect it's going to work. 2 And, so, is it appropriate to show 3 arrows from the store back office to the 4 intermediary transaction computer, and, then, 5 further to the game provider? 6 A. Yes. 7 Q. Okay. And, so, in this 8 modification, is it correct that the cash 9 register would scan a ticket and issue a 10 communication to the store back office as -- 11 as described in this figure? 12 A. Yes. 13 Q. Okay. And, then, there's already a 14 ticket activation request that extends 15 between the Store Back Office 240, and the 16 game provider in 250? 17 A. Yes. 18 Q. Why don't you explain to me, then, 19 how the -- the scan of the ticket would be 20 accommodated in a modified Figure 2 diagram. 21 A. Okay. So, first of all, the Ticket 22 Activation Request an activation response. 23 The existing ones would go away -- 24 Q. Okay.

Page 106 1 A. -- replaced by the two new blue 2 arrows, which would be -- should be labeled 3 "Ticket Activation Request" and "Activation 4 Request." 5 Q. All right. 6 So I've just drawn a red line 7 through the existing arrows in Figure 2 8 labeled "Ticket Activation Request" and 9 "Activation Responses" because you said they 10 go away; is that correct? 11 A. Right. 12 MR. HAILS: All right. 13 Give me a -- give me a moment, 14 please. I want to use the 15 properties Bar Code. I don't know 16 why it's red inside, but that's 17 fine. 18 Okay. So, now, I've modified 19 my modification. 20 BY MR. HAILS: 21 Q. And in Figure 2, we show a Store 22 Back Office 240 as originally provided. 23 We've got my new box called an intermediary 24 transaction computer, which is hovering in	Page 108 1 me if I'm wrong, but I think we're replacing 2 the Ticket Activation Request and Activation 3 Responses from the original figure with these 4 flows. 5 And, so, let's -- let's take -- 6 let's take the overall flow from the Store 7 Back Office 240 to the intermediary 8 transaction computer, and, then, further to 9 the game provider. There's -- there's a para 10 -- there's one arrow, each pair, that -- that 11 extends in that direction. 12 Am I correct that -- that in the 13 flow from the store back office through the 14 intermediary transaction computer, and, then, 15 to the game provider, that data flow is 16 carrying the Ticket Activation Request that 17 is in Szrek's original Figure 2? 18 A. Correct. 19 Q. Okay. And, then, same question for 20 the Activation Response that comes back. 21 In Figure -- the -- the modified 22 Figure 2 that we have, we have a -- an arrow 23 extending from the game provider to the 24 intermediary transaction computer, and, then,
Page 107 1 the negative space between the Back Office 2 240 and the Game Provider 250; do you see all 3 of that? 4 A. I do. 5 Q. Okay. And, then, we've got two 6 pairs of arrows. One pair of arrows extends 7 between the Store Back Office 240 and my new 8 box, the intermediary transaction computer; 9 is that right? 10 A. Right. 11 Q. Okay. Now, we've got a second pair 12 of arrows extending between the intermediary 13 transaction computer and the Game Provider 14 250; do you see that? 15 A. I do. 16 Q. Okay. And does this modification 17 of Figure 2 accurately represent what you 18 were describing in this paragraph 180 of your 19 declaration? 20 A. Yes, it does. 21 Q. Okay. Okay. 22 And, so -- and let's make sure I 23 understand the communication flow. 24 You said we -- and -- and correct	Page 109 1 a second arrow extending from the 2 intermediary transaction computer to the 3 store back office. 4 And my question is: In that data 5 flow, was it carrying the Activation Response 6 that's in Szrek's original Figure 2? 7 A. Yes, it is. 8 Q. Okay. 9 MR. HAILS: Let's switch to 10 Gilmore, and let's look at 11 Figure 2A and 2B from Gilmore. 12 BY MR. HAILS: 13 Q. Gilmore refers to this as a -- 14 well -- scratch that, I'm sorry. 15 MR. HAILS: Okay. I recommend 16 taking a break. I think I'm nearly 17 done, but I want to go through my 18 notes, and do a little mop-up and 19 see if I have anything left. 20 So how about we convene at 21 11:50 Eastern; does that work for 22 you guys? 23 MR. LU: Yes, that's fine. 24 THE WITNESS: Sure.

Page 110 1 MR. HAILS: All right. 2 - - - 3 (Whereupon, there was a brief 4 recess held off the record at 11:38 5 a.m. EST.) 6 - - - 7 (Back on record at 11:51 a.m. 8 EST.) 9 - - - 10 MR. HAILS: All right. 11 ^I will re-do my share. Just 12 so we're -- I think we're going to 13 mark the modified version of Szrek 14 as an exhibit. So in the -- during 15 the break, I've added a Legend to 16 this copy of Szrek. 17 I'm not competent enough to be 18 able to keep InComm's markings of 19 Exhibit -- I think it's 1005, and, 20 then, add this new one, so I had to 21 delete it just because time was 22 short. Let me show you what I've 23 done. All right. 24	Page 112 1 BY MR. LU: 2 Q. Mr. Hutton, can you turn to the 3 Szrek Patent at Column 3, starting on 4 Line 14? 5 A. (Witness complies.) 6 Yes. 7 Q. And it says, "To carry out the 8 present invention, it is assumed that an 9 environment is provided where the cash 10 register is capable of communicating with the 11 game provider system directly or indirectly, 12 and the game provider system or some other 13 system on behalf of the game provider system 14 is authorizing cash registers' lottery 15 transactions"; do you see that? 16 A. I do. 17 Q. So does this passage say that the 18 cash register can communicate directly with 19 the game provider system? 20 A. Yes, it does. 21 Q. In that embodiment, does the cash 22 register need to communicate with the back 23 office to activate a preprinted lottery 24 ticket?
Page 111 1 BY MR. HAILS: 2 Q. So just -- there are exhibit 3 markings down at the bottom. 4 Szrek -- I want you to just confirm 5 you still see the -- the modifications of 6 Szrek's Figure 2 in the way we discussed 7 prior to the break, but now in this copy that 8 has its own Exhibit number 2049, do you see 9 that? 10 A. Yes. 11 Q. Okay, great. 12 And, so, you agree that it still 13 reflects the modification of Figure 2 of 14 Szrek as we discussed prior to the break? 15 A. Yes. 16 Q. Okay, great. 17 MR. HAILS: Okay. Then, we 18 will pass the witness. Thank you. 19 MR. LU: Okay. I just have a 20 couple of questions. 21 - - - 22 CROSS-EXAMINATION 23 - - - 24	Page 113 1 A. Not in that embodiment. 2 Q. In that embodiment, could the 3 integrated accounting that's described 4 elsewhere occur without the back office? 5 A. Only for the lottery transactions. 6 Q. Do you recall testifying that it 7 would be obvious to place a lost transaction 8 processor between Szrek's back office and a 9 game provider as depicted in Exhibit-2049 10 that Counsel diagrammed? 11 A. And the question was again? Sorry. 12 Q. Do you recall earlier -- 13 A. Yes, I do. 14 Q. -- but let's -- let's have a clean 15 record. 16 So do you recall before the break 17 testifying that it would be obvious to place 18 Llach's transaction processor between Szrek's 19 back office and the game provider? 20 A. I recall that, yes. 21 Q. Would it also be obvious to place a 22 transaction processor in-between the cash 23 register and the game provider? 24 A. Yes, it would.

Page 114 1 MR. LU: I have no further 2 questions. 3 MR. HAILS: I do have some 4 follow up, all right? 5 - - - 6 RE-DIRECT EXAMINATION 7 - - - 8 BY MR. HAILS: 9 Q. You were asked about what happens 10 to integrated accounting without the back 11 office; do you recall that? 12 A. I was asked about that, yes. 13 Q. Okay. 14 MR. HAILS: Let's look at 15 Szrek again. 16 BY MR. HAILS: 17 Q. All right. 18 We're at Szrek, and we've got -- 19 this is the now Exhibit-2049, and we've got 20 the drawing with Figure 2; do you see that? 21 A. I do. 22 MR. HAILS: Let's -- let's go 23 to -- let's go to -- without the 24 modifications. So give me one	Page 116 1 store back office still exists or not? 2 Q. It's a hypothetical that Counsel 3 provided to you on re-direct. 4 A. Okay. So the hypothetical was 5 doing -- if the lottery terminal could 6 communi- -- if the cash register could 7 communicate directly with the lottery 8 administration system for these ticket 9 activation transactions. So, yes, it can. 10 It was -- and it would be able to 11 do those transactions. And if you needed 12 integrated accounting, you would need to be 13 able to extract the accounting information, 14 and the cash register would need to record 15 the lottery transactions in -- in its own 16 memory, and be able to provide those to 17 either a store back office system or some 18 other store administration system that's 19 responsible for accounting. 20 So if the -- if the lottery 21 transaction didn't pass through the -- the 22 retailer's accounting system, then, the cash 23 register would -- would need to report those 24 sales to the accounting system some other
Page 115 1 second. 2 BY MR. HAILS: 3 Q. To avoid confusion, this is 4 Exhibit-1005, and I'm going to read -- it had 5 been annotated, but we've now moved that to 6 an Exhibit-2049. 7 So -- so this is Figure 2 8 unadulter- -- of Szrek unadulterated as it 9 appears in Exhibit-1005; do you see that? 10 A. I do. 11 Q. Okay. I just asked you what 12 happens with integrated accounting when 13 they're without the back office; do you 14 remember that discussion? 15 A. Yes, I do. 16 Q. Okay. So there's no back office 17 and the Cash Register 230 communicates 18 directly with the game provider, how does the 19 integrated accounting function work? 20 A. Are you asking me that? 21 Q. Yes. 22 A. Okay. So it would have to be -- 23 there would be -- without a store back 24 office, a lot of your -- assuming that the	Page 117 1 way, rather than the store back office just 2 picking it up. 3 Q. Okay. 4 A. So the integrated accounting would 5 be a little bit more complicated but would 6 not be precluded. 7 Q. Okay. So in -- you have a cash 8 register, and it communicates directly with 9 the game provider. 10 When there are -- three elements 11 were there, I believe you had testified that 12 the cash register forms accounting 13 transactions essentially to manage its own 14 drawer. I know you didn't use that -- those 15 terms, but the cash register performs an 16 accounting function for the sales it 17 performs. 18 Is -- is that a fair 19 characterization of how the cash register 20 works when all three components are provided? 21 A. Yes. The cash register -- the -- 22 always is audible. So it perfor- -- it 23 performs accounting functions in order that 24 the cash register operations can be audited.

Page 118 1 Q. Okay. And, then, I believe you 2 said that the store back office performs -- I 3 think you had said reconciliation, so that 4 there can be audit -- a reconciliation with 5 the -- the game provider. And, again, I'm 6 not totally sure. So maybe we should do it 7 piece by piece. 8 When the store back office is there 9 and it performs auditing functions, remind 10 me, what kind of functions does it perform? 11 A. It -- it records the transactions 12 that are sent through the -- it records all 13 the transactions that the cash register is 14 doing, and, also, it does -- keeps separate 15 buckets in order of -- of -- of transactions 16 for different product ^saying, for example, 17 the lottery, or the telephone card vendor or 18 some other vendor, so that it -- it keeps 19 accounting buckets for them, so that they can 20 reconcile with them their sales. 21 Q. Okay. So in the lottery 22 implementation, if you have a store back 23 office there, is it correct that the store 24 back office would create a transaction log	Page 120 1 Q. And I had arrows extending from the 2 cash register to the intermediary transaction 3 computer, and, then, another arrow extending 4 from the intermediary transaction computer to 5 the Game Provider 250 -- 6 A. Yeah. 7 Q. -- do you recall that? 8 A. I do. 9 Q. They were double-headed arrows; do 10 you recall that? 11 A. I do. 12 Q. Okay. And I asked you if that was 13 the setup -- scratch that. 14 I asked you if that was the 15 modification of Szrek that you had envisioned 16 in paragraph 180 of your declaration, do you 17 remember that? 18 A. I do. 19 Q. You told me, "no." 20 A. Well, when you had -- the way you 21 have it now, or the way it was before? 22 Q. The way it was before. 23 A. Okay. Because the diagram has the 24 store back office in it, I was responding to
Page 119 1 that can be reconciled with a game provider 2 at some later appointment? 3 A. Yes. 4 Q. Okay. Okay. 5 And, so, now, the store back office 6 is gone. 7 How would the reconciliation 8 accounting be performed when the cash 9 register is communicating directly with the 10 game provider? 11 A. The reconciliation would have to be 12 done between some readout. I mean, the most 13 primitive way would be -- you would print out 14 basically the transaction log from the cash 15 register, and -- and the game provider system 16 would provide a reconciliation report and, 17 then, you need to match them. 18 Q. Okay. When we were preparing this 19 Exhibit-249 -- 2049, an earlier version -- I 20 had the intermediary transaction computer 21 provided any communication between the cash 22 register and the game provider; do you recall 23 that discussion? 24 A. I do.	Page 121 1 your question about this diagram -- how the 2 modification would apply to the diagram. If 3 you erase the store back office, then, your 4 original configuration would be correct. 5 Q. I see. 6 So with that modification, are you 7 replacing the store back office with the 8 intermediary transaction computer? 9 A. No. I am just putting in the -- if 10 there's no store back office, you -- and the 11 cash register's -- and the cash register is 12 the still talking directly to the -- and the 13 cash register's not using the store back 14 office to do these lottery transactions, it 15 would -- certainly could talk to the 16 intermediary transaction computer. 17 Q. Okay. So I'm having a tough time 18 understanding your -- your testimony. 19 MR. HAILS: Let's go to -- 20 that's not it -- paragraph 180. 21 BY MR. HAILS: 22 Q. It says, "It would have found it 23 obvious to modify Szrek's system for 24 activated tickets to incorporate Llach's

Page 122 1 teachings of intermediary transaction 2 computer between the cash register and the 3 game provider system"; is that right? 4 A. Yes. 5 Q. Okay. And I had drawn -- and 6 there's no discussion here of erasing 7 anything, right? 8 A. No, not there. 9 Q. There's no discussion actually of 10 the -- of the back office at all? 11 A. No, there's not. 12 Q. Okay. And, so, I -- and, so, I 13 drew -- I'll do this again, I guess -- let's 14 do it again. 15 I drew an intermediary transaction 16 computer box, which I'm doing again on 17 Exhibit-1005, and this was not -- all right. 18 So we've got -- I've now taken 19 Szrek's Figure 2, and I've drawn another -- 20 another copy. So, right now, it's 1005, but 21 we're modifying it, and I've taken an 22 intermediary transaction computer box, and 23 put it above the store back office and 24 floating essentially, and I've got a	Page 124 1 there, in my opinion. 2 Q. 180 says -- paragraph 180 of your 3 declaration says, "An intermediary 4 transaction computer between Szrek's cash 5 register." 6 Is there any other way to interpret 7 "cash register" other than it to be 230 in 8 Figure 2? 9 A. You can interpret it as a Point Of 10 Sale. 11 Q. How -- how do -- how do you 12 interpret it? 13 A. I interpreted it as a Point Of 14 Sale. 15 Q. I see. Okay. 16 And the game provider system, is 17 the game provider system in paragraph 180 18 this Game Provider 250? 19 A. Yes, it is. 20 Q. Okay. So -- but the cash register 21 is not the 230? 22 MR. LU: Objection. 23 Mischaracterizes his testimony. 24 THE WITNESS: What is the
Page 123 1 double-headed arrow extending between the 2 cash register and that new box. And I have 3 another double-headed arrow extending between 4 the intermediary -- intermediary transaction 5 computer box and the game provider sys- -- 6 system; do you see that? 7 A. I do. 8 Q. And that's what we discussed 9 before, right? 10 A. Correct. 11 Q. And you said this was wrong? 12 A. Because there's a store back office 13 in the diagram. 14 Q. Okay. 15 A. So in -- in 180, a person of 16 ordinary skill would understand that I was 17 talking about between the Point Of Sale and 18 the lottery transaction system. And the 19 Point Of Sale could be interpreted as being 20 the cash register, plus the store back 21 office, or just the cash register. 22 Q. Okay. 23 A. So both of those embodiments that 24 we drew are consistent with what I wrote	Page 125 1 question. 2 BY MR. HAILS: 3 Q. The cash register in -- this 4 reference in 1- -- your paragraph 180 is not 5 the cash register of 230 shown in Szrek's 6 Figure 2; is that correct? 7 A. The term, "cash register," can be 8 interpreted as Point Of Sale, and a person of 9 ordinary skill would understand that when you 10 say "cash register," you're just using a term 11 from a Point Of Sale device. You're not 12 requiring it to be "the cash register," 13 right. 14 So we're talking about Szrek's 15 system for activating lottery tickets to 16 incorporate Llach's teaching of an 17 intermediary transaction process and between 18 Szrek's Point Of Sale and the game provider 19 system would be a more accurate way to put 20 it, and that's what I was in- -- was 21 intending when I wrote that. 22 Q. Okay. 23 A. I didn't intend that to be limited 24 to that particular -- particular cash

Page 126 1 register word. 2 Q. This paragraph does not use the 3 term, "Point Of Sale"; is that correct? 4 A. Excuse me? 5 Q. This paragraph, 180, does not use 6 the term, "Point Of Sale"; is that correct? 7 A. No, it does not. 8 Q. Okay. And where did you provide 9 your interpretation of the term, "cash 10 register"? 11 A. Just now in my testimony to clarify 12 based on your question. 13 Q. I'm sorry, I'm not -- I -- I didn't 14 catch that. I -- the acoustics were bad. 15 Would you repeat that? 16 A. ^I said I -- just now in my 17 testimony to clarify what I meant when I read 18 that based on your question. 19 Q. So you did not interpret -- provide 20 a definition of the term, "cash register," in 21 your declaration; do you agree? 22 A. No, I did not. 23 Q. Show me where it is. 24 A. I said, "I did not."	Page 128 1 So let's leave the -- the Zoom 2 up, if you could, Bob. 3 - - - 4 RE-CROSS-EXAMINATION 5 - - - 6 BY MR. LU: 7 Q. So in paragraph 180 you say, 8 "Incorporate Llach's teaching of intermediary 9 transaction computer between Szrek's cash 10 register and the game provider system." 11 If you recall the diagram where the 12 intermediary transaction computer is between 13 the store back office and the game 14 provider -- 15 A. Yes. 16 Q. -- would it also still be between 17 the cash register and the game provider, 18 despite the presence of the back office, even 19 if indirectly? 20 A. If -- I don't quite understand. 21 Q. So, in this diagram on the right, 22 which we haven't labeled as an exhibit yet, 23 but I -- I assume it's going to be 24 Exhibit-2050, the intermediary transaction
Page 127 1 Q. Oh, you did not, okay. 2 And you did not provide a 3 declaration of the term, "Point of Sale," in 4 your declaration, did you? 5 A. No, I did not, because a person of 6 ordinary skill would understand that "Point 7 Of Sale" and "cash register" was, in fact, a 8 Point Of Sale, and the terms are often used 9 interchangeably in the -- in the industry. 10 Q. Okay. And, so, if they're 11 interchangeable, so when Szrek uses the term, 12 "cash register," in Figure 2, someone would 13 understand that the Cash Register 230 is the 14 Point Of Sale; is that correct? 15 A. Yes. 16 Q. I didn't catch an answer. 17 Was there an answer? 18 A. I said, "yes." 19 Q. Okay. Thank you. 20 MR. HAILS: Okay. I'll pass 21 the witness. 22 Thank you. 23 MR. LU: Just a couple 24 clarifying questions.	Page 129 1 computer is directly between the cash 2 register and the game provider, correct? 3 A. In that diagram, yes. 4 Q. Does the cash register still 5 communicate with the back office to perform 6 whatever function's necessary by the back 7 office? 8 A. Yes. 9 Q. Okay. 10 MR. LU: No further questions. 11 MR. HAILS: Okay. 12 Quincy, you're correct, this 13 will become an exhibit, and it will 14 become Exhibit, I guess, 2050, if I 15 have my numbering correct. It 16 takes me a little time to get my 17 act together. 18 What I propose to do is to 19 send both of these -- I'll mark 20 it -- so I'll just send you a 21 screenshot right now, just so we're 22 on the same page. 23 And, then, I would propose to 24 mark them both, and send them to

Page 130 1 the court reporter and ask her to 2 append them to the transcript when 3 it is ready. 4 MR. LU: If you'll -- it -- 5 it's up to you. I think the most 6 straightforward -- you don't 7 necessarily have to send it to us. 8 I think the most straightforward 9 thing is when you file your -- 10 where are we at here, your 11 response -- 12 MR. HAILS: Yep. 13 MR. LU: -- you can just 14 include them as exhibits. 15 MR. HAILS: Okay. 16 MR. LU: Yeah. 17 MR. HAILS: Okay. All right. 18 That sounds good. So, then, I 19 don't have to stress about how to 20 get this done. It was... 21 MR. LU: Yeah, no, you don't 22 have to do it now. 23 MR. HAILS: All right. I 24 think we are done.	Page 132 1 need a copy. I don't need a copy. 2 I don't know if I need to clarify, 3 but Bob pronounced the reference as 4 "Llach," and you pronounce it as 5 Llach. 6 - - - 7 (Whereupon, the witness was 8 excused at this time.) 9 - - - 10 (Whereupon, the deposition 11 concluded at 12:13 p.m.) 12 13 14 15 16 17 18 19 20 21 22 23 24
Page 131 1 Let's go off the record. 2 THE COURT REPORTER: Okay. 3 - - - 4 (Whereupon, there was a brief 5 discussion held off the record at 6 12:12 a.m. EST.) 7 - - - 8 MR. HAILS: Mary, did you have 9 any questions about terminology or 10 anything like that? 11 THE COURT REPORTER: No, just 12 did anyone want a copy? 13 MR. HAILS: Yes. I'd like a 14 rough immediately. And, then, I -- 15 and I think we had asked for a 16 Monday turnaround, something like 17 that -- 18 THE COURT REPORTER: Yes, 19 okay. 20 MR. HAILS: -- according to 21 the order. 22 THE COURT REPORTER: Yes, 23 okay. 24 MR. LU: I don't -- I don't	Page 133 1 - - - 2 C-E-R-T-I-F-I-C-A-T-I-O-N 3 - - - 4 I hereby certify that the 5 witness was duly sworn in for this 6 deposition matter by the Court 7 Reporter. 8 9 10  Mary Hammond October 16, 2024 11 12 13 (The foregoing certification 14 of this transcript does not apply 15 to any reproduction of the same by 16 any means, unless under the direct 17 control and/or supervision of the 18 Certified Shorthand Reporter.) 19 20 21 22 23 24

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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VERITEXT LEGAL SOLUTIONS

COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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