

1 UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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INTERACTIVE COMMUNICATIONS

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INTERNATIONAL, INC.,

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Petitioner,

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v.

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BLACKHAWK NETWORK INC.

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Patent Owner.

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Case No. IPR2024-00465

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U.S. Patent No. 11,488,451

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October 16, 2024

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Oral Zoom deposition of

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MICHAEL HUTTON, taken pursuant to

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Notice, held via Zoom, beginning at

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approximately 9:30 a.m., before

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Mary Hammond, a Certified Shorthand

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Reporter and Notary Public in the

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state of Pennsylvania.

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Page 2 1 A-P-P-E-A-R-A-N-C-E-S 2 3 BAKER & HOSTETLER, LLP 4 BY: ROBERT L. HAILS, ESQUIRE 5 1050 Connecticut Avenue NW 6 Suite 1100 7 Washington, DC 20036 8 rhails@bakerlaw.com 9 Counsel for Patent Owner 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@quinnemmanuel.com 17 Counsel for Respondent 18 19 20 21 22 23 24	Page 4 1 - - - 2 DEPOSITION SUPPORT INDEX 3 - - - 4 5 OBJECTIONS 6 7 Page Line 8 39 12 9 51 21 10 124 1 11 12 DIRECTION NOT TO ANSWER 13 14 Page Line 15 None 16 17 REQUEST FOR PRODUCTION OF DOCUMENTS 18 Page Line 19 None 20 21 STIPULATIONS 22 23 Page Line 24 5 4 25 26 27 28 29 30 31 32 33 34
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 111, 127 9 10 11 12 - - - 13 E-X-H-I-B-I-T-S 14 - - - 15 NAME DESCRIPTION PAGE 16 Exhibit-2050 Screenshot 127** 17 18 19 20 21 22 23 24 (**Counsel retained exhibit.)	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

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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 answer it before we take the break. 13 Do these sound -- do these ground 14 rules sound okay to you? 15 A. They do. 16 Q. Are you aware of anything that 17 would prevent you from providing accurate 18 testimony today? 19 A. Nothing. 20 Q. And I see on the video that you've 21 brought materials with you to the dep- -- 22 deposition. 23 Will you please describe what you 24 have in hand?
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 A. I have a copy of my declaration in 2 this matter. I have a copy of my -- I have a 3 transcript of the previous dep- -- deposition 4 in the other matter. I have a copy of the 5 '451 Patent; a copy of the Erwin Patent, 6 which is '984. 7 I have a copy -- copy of the Szrek 8 Patent, which is '497, and I have a copy of 9 the Llach Patent, which is -- I believe it 10 says '768 here, but it's the Llach Patent. 11 Q. All right. 12 There are two Llachs, I think, and 13 you mentioned -- 14 A. Exhibit -- Exhibit-1006. 15 Q. Fantastic. All right. 16 Are those materials ann- -- 17 annotated in any way? 18 A. No, they are not. 19 Q. All right. 20 So during the course of today's 21 deposition, as we did in the prior 22 deposition, I probably will share content 23 with you through this Zoom, and it's 24 important that we develop a record that

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

4 (Pages 10 - 13)

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

5 (Pages 14 - 17)

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

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

Page 26 1 server resources. There was the main game 2 server system. That was actually JEE. JEE 3 is a -- similar to an operating system, but 4 it's not an op- -- that allows you to build 5 applications. 6 It's -- it's a technology for 7 building something called an application 8 server, which was a way of basically 9 communicating over the web with any number of 10 locations. 11 So -- and it had a -- and -- and 12 back into a database on the back end. So 13 there was the main processor, which contained 14 the -- the -- the files of instant tickets, 15 you know, electronic instant tickets, and 16 that served the terminal network. 17 And, then, there was a 18 high-performance database cluster behind 19 that, and behind that high-performance 20 database cluster was a very high-end 21 performance storage array. 22 Q. And the -- the storage array that 23 you just mentioned, is that a reference to 24 the -- in-memory database that's discussed	Page 28 1 Q. Okay. So the -- but the disc 2 arrays, the memory, and those features, those 3 are functions that were performed on the 4 server side of this -- of this system; is 5 that correct? 6 A. That's correct. 7 Q. Okay. And, then, I don't remember 8 if I asked you -- when was the work done 9 that's mentioned here in this paragraph 8? 10 A. I believe it was sometime in the -- 11 in the late 2010s, early 20- -- either the 12 late in the first decade, or -- or early in 13 the second decade. They did a number of 14 projects with China, which finally 15 accumulated around 2013, so this was probably 16 around that time, between 2010 and 2013. 17 Q. Okay. And, then, let's look at 18 paragraph 8. 19 A. (Witness complies.) 20 Q. So can I do it without the page 21 break? Yeah. Let me know if this Zoom is 22 too heavy, but I'll show paragraph 9 on the 23 Zoom, which is Pages 2 and 3 of your 24 declaration, a second system.
Page 27 1 here in paragraph 8? 2 A. No. 3 Q. What is the in-memory database 4 then? 5 A. The in-memory database was -- was 6 where we kept the -- the transactions for 7 these -- for the ticket transactions. So we 8 would load all of these files in, and, then, 9 we would load the files into memory, so they 10 were -- the tickets were pulled out of 11 memory, not right out of the database. 12 And, also, the database cluster was 13 also an in-memory database, meaning that most 14 of the data for the database was in the 15 memory of the -- of the database server, and, 16 then, only later backed up -- written back to 17 the persistent memory of the disc. 18 So the database operated as 19 basically in memory. It stored its data in 20 the computer memory, rather than a 21 traditional relational database at that -- 22 that time, which would also be caching a 23 small amount of data, but reading most of its 24 data from the persistent disc arrays.	Page 29 1 This one identified as a Shanghai 2 welfare lottery. 3 Can you describe this system? 4 A. Yes. This system was a -- a -- 5 essentially a gateway processor for allowing 6 customers to place bets on their mobile 7 phones against the -- an existing lottery 8 system that was operated by one of my clients 9 in -- for the Shanghai Bank high welfare 10 lottery. It was one of the many lotteries 11 that operate -- sports lotteries that 12 operated in China at the time. 13 And what this did was allowed -- 14 it -- it connected through a -- there's a 15 mobile provider who interfaced with all the 16 mobile phones; in other words, they had the 17 actual mobile phone system that communicated 18 with the mobile phones, and that system 19 communicated with the gateway system that I 20 developed, which took the request from the -- 21 from a, you know, 20 or 30,000 or -- or 22 lit- -- literally millions -- shanghai is a 23 very large city -- from the millions of 24 people in Shanghai that were -- wanted to

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

Page 34 1 mentioned, is that what's meant in this last 2 sentence of the paragraph, "back office 3 administration"? 4 A. Yes. 5 Q. Okay. There's a reference to an 6 "IBM WebSphere" in this paragraph. 7 What is that? 8 A. That was -- this -- this paragraph 9 was lifted right out of a CV, and at the time 10 that this work was done WebSphere was a hot 11 product, so that's why I mention it 12 "WebSphere." 13 Q. Okay. 14 A. And, again, it's another 15 application server product. 16 Q. Okay. Can you -- can you put a 17 date with this -- with this work for the 18 Pennsylvania Lottery? 19 A. Yeah. This was probably closer to 20 the turn of the Century, maybe 1999, 2000. 21 Q. Okay. And did -- were there 22 specifications for volume of transactions, 23 for example, in the way that was done for 24 the -- the work for the -- the two Chinese	Page 36 1 PGR and IPR proceedings, have you had any 2 exposure to InComm's products? 3 A. I don't believe so, no. 4 Q. How about Blackhawk, have you had 5 any exposure to Blackhawk products in your 6 work? 7 A. Aside from, you know, buying a gift 8 card, you know, as a customer, no. 9 Q. Okay. 10 MR. HAILS: Let's go to Erwin, 11 then, and this is where I'm going 12 to struggle. 13 BY MR. HAILS: 14 Q. Okay. What I've got here on the 15 Zoom -- I may toggle between them, so just 16 for point of reference I've got copies of the 17 entire reference, but I think it will be 18 easier ultimately if we have the -- be able 19 to show the figures side by side with text as 20 needed, and, so, I've got a separate file for 21 just the figures. 22 MR. HAILS: And I'm going to 23 show on the Zoom Erwin, which is 24 Exhibit-1030, Figure 1.
Page 35 1 systems? 2 A. No, it wasn't -- it wasn't -- there 3 were no specifications like that for this. 4 It was merely -- it needed to be useable from 5 a business sense. So the response time 6 for -- the users of the system were small. 7 Rather than thousands of Point Of 8 Sales systems -- Point Of Sales, it uses a 9 system -- maybe a dozen or so back-office 10 clerical workers using the system, so the 11 system had to be responsible enough for them 12 to handle their workload, but there was no 13 contractual requirement for performance as 14 there are in online lottery systems. 15 Q. Okay. All right. 16 So let's -- oh, so in your work, 17 have you had any exposure to InComm's 18 products? 19 A. I don't believe so, no. 20 Q. Okay. 21 A. I mean, except in reading the -- 22 the patents and being exposed to this 23 litigation. 24 Q. Okay. So outside of -- of these	Page 37 1 BY MR. HAILS: 2 Q. Do you see that on the Zoom? 3 A. Yes. 4 Q. All right. 5 MR. HAILS: I'm going to blow 6 it up, so it's a little easier to 7 read, all right. 8 BY MR. HAILS: 9 Q. I'd like your understanding, and -- 10 and have you walk us through the -- the 11 system that's shown here in Figure 1. 12 And I'll start with the "Merchant 13 105," which is down on the bottom right-hand 14 corner. 15 Will you explain to me your 16 understanding what kind of equipment is being 17 used at the Merchant location? 18 A. I would assume it would be some 19 brand of Standard off-the-shelf Point Of Sale 20 equipment. 21 Q. Okay. And, then, Erwin discloses 22 something with Reference 110 called an 23 "acquiring processor"; do you see that? 24 A. I do.

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

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

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Page 46 1 Q. Okay. But does it -- does it 2 interpret the data blog? 3 A. It does not need to interpret the 4 data blog, but there's nothing precluding it 5 from being configured to recognize certain 6 types of data blogs to certain BINs. 7 Again, I'm -- I'm speculating here, 8 but that's a possibility. The acquiring 9 processor could look at the blog if the 10 application -- if there was a reason for it 11 to, and it was configured to do it, but it 12 doesn't need to as -- as part of what it 13 does. 14 Q. Okay. And, then, let's talk about 15 the interchange. 16 How does the interchange use the 17 BIN? 18 A. The interchange uses the BIN 19 similar to the way the acquiring processor 20 uses the BIN, except it's closer to the 21 central post office. So whereas the 22 acquiring processor could possibly just do no 23 re-routing, and just say, "Okay. I have a 24 BIN. I'm going to now just" -- "and I	Page 48 1 the -- basically, that payload data. 2 There could be some payload data 3 that is significant to the interchange 4 processors that it does some other function, 5 but -- but it doesn't need to. So the 6 interchange doesn't need to do anything with 7 the blog to perform its function. 8 Q. Do you recall any discussion 9 from Erwin that describes the Interchange 120 10 interpreting a blog? 11 A. I don't recall offhand, no. 12 Q. I probably should have asked about 13 the acquiring processor. 14 Do you recall any discussion 15 from Erwin that discusses the acquiring 16 processor interpreting a blog? 17 A. I don't recall offhand. 18 Q. All right. 19 Let's talk about the issuing 20 processor. 21 How does the issuing processor use 22 the BIN? 23 A. The issuing processor uses the BIN 24 because it -- it's actually -- the issuing
Page 47 1 have a" -- "and I'm connected to an inter-" 2 -- "interchange," so all the acquiring 3 processor does is record the fact that it 4 passed that -- it routed that transaction, 5 and potentially charged a fee for it. 6 And, then, says that I sent -- and, 7 then, if it's connected to an interchange, it 8 sends all its transactions -- forwards all 9 its transaction onto that interchange, and 10 the interchange figures out how to further 11 route that BIN. 12 Q. Okay. Does the interchange 13 interpret a data blog? 14 A. It would be unlikely since the 15 interchange is more of a generic routing 16 system. However, again, since they're all IT 17 systems and they all can be programmed to do 18 things, it's possible that there could be 19 some custom programming for certain 20 situations, you know, hypothetical situations 21 where the interchange might look at some -- 22 some questionable data blog, you know, there 23 could be a data blog that's segmented, and it 24 might have a -- a segment in the data blog in	Page 49 1 processor now is the final destination 2 because the BIN represents basically the -- 3 the address of the issuing processor. 4 So the ish- -- issuing processor 5 uses the BIN to understand that, "Yes, this 6 was intended for me," and, then, the issuing 7 processor could potentially perform some 8 functionality having to do with -- dealing 9 with banking transactions. 10 I could -- 11 Q. Let's see -- 12 A. One -- one would be -- you know, 13 maybe they would be, you know, charging -- 14 taking their fee out, doing accounting for 15 the -- for the cardholder's bank, things of 16 that nature. So they have -- might have 17 value-added services depending on the 18 contract with the cardholder's bank. 19 So, again, they could provide 20 value-added services there, but, again, they 21 wouldn't necessarily need to. They basically 22 just need to record the fact that they got -- 23 the issuing processor got the transaction, 24 and, then, it -- it's going to send it to the

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

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

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Page 58 1 first paragraph, starting around Line 20. 2 Maybe take a look at that, and make sure 3 you're comfortable with your -- your answer. 4 A. (Witness reviews document.) 5 Okay. That ess- -- that 6 essentially says what I just said. 7 Q. Okay. So this is going to be 8 difficult to show Figure 14 and Figure 11 9 simultaneously since they're not on the same 10 page. 11 So before we leave Figure 14, let 12 me make sure that I understand this 13 correctly. 14 The 211 Bar Code is a UPC Bar Code; 15 is that correct? 16 A. That's correct. 17 Q. Okay. And, then, the 212 Bar Code, 18 what does that represent? 19 A. That's the lottery information. 20 Q. "The lottery information." 21 Such as what? 22 A. Such as the type of unique 23 identifier for the substra- -- the unique 24 identifier of the substrate that was written,	Page 60 1 online indicia that it was read from in it. 2 That information would be 3 transmitted through the network through the 4 acquiring interchange to the lottery central 5 site, which would then decode both the ticket 6 serial number to find the matching lottery 7 transaction, and additionally validate that 8 the -- it matched the indicia. 9 And, then, it would read back that 10 transaction with the numbers that were bet in 11 that transaction, compare it to the results 12 of the draw, and decide whether or not it's a 13 winner. 14 And if it is a winner or a loser or 15 whatever, it would send back -- the results 16 of that comparison back to the network 17 through a print command to the merchant. 18 Q. Okay. So the -- the system 19 confirms that a lottery ticket is a winner by 20 scanning the ticket in Figure 14; is that 21 correct? 22 A. Yes. 23 Q. Okay. 24 A. And maybe you mentioned this
Page 59 1 it was read from. The game, the draw date, 2 the -- basically, the -- much of the 3 information that is printed on that ticket. 4 Q. Okay. And in Column 11, it talks 5 about -- starting at Line 20, it talks about 6 validations of the online game tickets; do 7 you see that? 8 A. I do. 9 Q. All right. 10 Are you able to explain to me how 11 the validation process would work using 12 the -- the network of Figure 11? 13 A. Yeah. So the merchant would -- the 14 -- the Lot- -- lottery customer would present 15 that ticket, that receipt, to the merchant. 16 The merchant would perform the scans 17 described in the document you have up on the 18 right. 19 Q. Okay. 20 A. The lottery information, which 21 would cause the POS to append the lottery 22 BIN, and the information from the scanned off 23 the Bar Code, which would at a minimum have 24 at least the ticket serial number and the	Page 61 1 already, but I -- I can't tell -- the lines 2 here, "A," "B," "C," "D," and "E" in 3 Figure 14, what does those represent? 4 They just represent bets; in other 5 words, that's a Mega Bucks draw, so it would 6 be -- I don't remember what the -- I don't 7 remember what the matrix is for -- I don't 8 know what the matrix is, but those are just 9 lottery numbers. "A," "B," "C." "A" and the 10 numbers following it are lottery numbers. 11 "B" and the numbers following it are lottery 12 numbers, and so on. 13 And the "PB" on the other side, I 14 assume, stands for "Powerball," so the 15 Powerball pick was 42. 16 Q. Okay. And, so, the "PB," are they 17 part of the set of lottery numbers for each 18 row? 19 A. Yes. 20 Q. Okay. In the -- in the Erwin 21 system shown in Figure 11, right here, is it 22 possible to determine whether a lottery 23 ticket is a winner from a scan of the card 24 shown in Figure 12?

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Page 62 1 A. It -- it depends. It could be. It 2 depends on how the -- the -- what the lottery 3 system validates. I -- that ticket would 4 have to have a certain unique identifier of 5 the indicia, right? 6 So if the lottery system wants to 7 be able to validate from that, they could 8 certainly look it up by the indicia if they 9 record that with the -- with the transaction, 10 which a seeder would assume that they did -- 11 would understand that they would. 12 So, yes, it would be -- it -- it 13 would -- it would be -- yes, it would be able 14 to validate it from that. If, in fact, the 15 unique identifier was en- -- encoded in that, 16 which I said the seeder would understand that 17 that -- would be motivated to do that. 18 Q. Figure 22 of -- sorry, yeah, 19 Figure 22 of Erwin. 20 Do you see that on the share? I'll 21 maximize it. 22 A. It says "Figure 16" at the bottom. 23 Q. I'm sorry. Figure 22. My 24 apologies. All right.	Page 64 1 second, please. Okay. I'm going 2 to show an excerpt from a 3 paragraph. 4 BY MR. HAILS: 5 Q. This is Column 12. The paragraph 6 begins at Line 44, and it extends through -- 7 let's call it Line 58; do you see that? 8 A. I do. 9 Q. Okay. There's a -- are you 10 familiar with street sale applications of 11 lottery tickets? 12 A. Yes. 13 Q. Can you describe to me how that 14 works. 15 A. There's a large -- how it works in 16 this case, or in general? 17 Q. Well, Erwin's application of 18 street -- 19 A. Erwin's application. 20 So essentially the -- the 21 standard's carrying portable Point of Sale 22 equipment, which would most likely consist of 23 some sort of tablet computer, some sort of 24 printing device that is portable, that can be
Page 63 1 Do you see Figure 22 on the Zoom? 2 A. I do. 3 Q. All right. 4 So this figure shows application of 5 the interchange system to a street vendor 6 sale, do you agree? 7 A. I do. 8 Q. Okay. Let's -- well, what does 9 this -- does this "Element 220" refer to -- 10 220 prongs -- 11 A. 220 is a -- I assume -- do you know 12 what, I have to look that up because the 13 diagram's not clear. It's either the -- you 14 know, I don't know what 220 is. 15 220 is the street vendor, okay. 16 Q. Okay. All right. 17 And am I correct that the street 18 vendor does not work in a brick and mortar 19 retail location? 20 A. You would assume so by the name, 21 "street vendor." 22 Q. All right. 23 Let's go to the next, Column 12. 24 MR. HAILS: Give me one	Page 65 1 carried by a single person, along with a 2 wireless communication device, say, a 3 wireless hot spot or something, cell phone. 4 Is that your question? 5 Q. Well, and, then -- I don't know. 6 I'm not familiar with this, so I guess I'm 7 struggling for a question. 8 I assume there are not -- there -- 9 there aren't checkout lanes the way that 10 there would be in a -- 11 A. No, the -- the street vendor -- the 12 street sales is basically the people who walk 13 around, say, a sports stadium, or outside a 14 sports stadium. This is very popular in 15 Latin American and in southern Europe. They 16 walk around a -- a sports stadium, and they 17 would be basically selling various kind of 18 games. 19 In this case, it's an instant 20 ticket for -- for the purposes of this. So 21 the -- the street vendor has a portable POS 22 equipment and a communications interface that 23 lets him talk to the -- to the Point of Sale 24 network.

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Page 66 1 So the lottery -- the lottery 2 ticket consumer either, you know, picks up a 3 ticket from somewhere around the venue, 4 depending on, you know, if it's, like, a 5 conference kind of indoor kind of thing, they 6 -- they may have these all around, or he goes 7 to the vendor who's got them laid out across 8 his arm. 9 They do the -- there's the ticket 10 -- there's the tickets laid out across their 11 arm, and the player will pick out a ticket 12 and the vendor will, then, scan that ticket, 13 will pick up the unique indicia from the 14 ticket, transmit it through the issuer 15 inquiry using that BIN routing that we 16 discussed earlier to a lottery central site. 17 And, then, the lottery central site 18 will look that up in its inventory database, 19 since it's a -- it's an instant ticket 20 inventory, and, then, activate that ticket so 21 it is now live and can be paid and it sends 22 back information to the street vendor as to 23 the cost of, you know, what to charge the -- 24 the customer, which is probably the face	Page 68 1 communication device 221, or possibly utilize 2 a built-in camera to scan bets. In each" -- 3 "any case, the online sale would be paid for 4 either by cash or previously discussed via 5 debt or credit card. Once the transaction 6 was tendered, the online ticket request would 7 be transferred to the lottery central site. 8 The transaction logged on the central 9 database site with a print ticket data packet 10 returned to the portable outer communications 11 device 221, which is then physically printed 12 on the street vendor's 224 portable printer 13 222." 14 Q. So, in this case, the Quick -- the 15 sale -- strike that question. 16 In this case, the vendor is 17 printing a Quick Pick picket -- strike that. 18 In this case, the street vendor is 19 selling the Quick Pick ticket via his 20 printer; is that correct? 21 A. Correct. And it -- and it allows 22 for either a Quick Pick ticket or the -- the 23 player can pick his numbers on a touch 24 screen, but it's selling an online lottery
Page 67 1 value on the ticket; and, also, most likely 2 does something to calculate the street 3 vendor's commission on that sale and who the 4 street vendor was, and records all of that 5 kind of information as well. 6 Does that explain it? 7 Q. I think so. 8 Okay. And, so, your answer 9 referenced instant tickets. I believe in -- 10 give me one second -- Column 16 says it can 11 be extended to online tickets. It's hard to 12 show the printing of online at Line 67, and, 13 then, up to the top of Column 16 tickets. 14 A. Right. 15 Q. So online Quick Pick tickets, I 16 guess; is -- is that correct? 17 A. Yes. 18 Q. Okay. And, so, how does this model 19 work for Quick Pick tickets? 20 A. Very similar. What it says here 21 is, "when selling online tickets, the street 22 vendor would either type either the specific 23 way to a Quick Pick request into the touch 24 screen of the portable tablet computer	Page 69 1 ticket. 2 Q. And, then, there's a reference to 3 something called a "passive game ticket." 4 A. Mm-humm. 5 Q. It begins in the same -- this 6 Column 16, roughly at Line 41. 7 What's your understanding of a 8 "passive game ticket"? 9 A. Are you familiar a raffle ticket? 10 Q. As a consumer? 11 A. Yes. A passive raffle ticket is a 12 form of a passive game ticket. So a passive 13 game ticket is essentially a -- a ticket that 14 contains a -- some kind of unique number on 15 it, most likely always shown, not hidden. 16 There might be some hidden validation stuff 17 somewhere. 18 But a passive game is essentially a 19 game where the -- all the -- the tickets are 20 preprinted and serialized. They're then 21 sold. And, then, a drawing is held to 22 determine which of those serial numbers is 23 the winner, or -- or, you know, in cases of 24 First, Second, Third prize, which of a number

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Page 70 1 of tickets is the winner. 2 But it's passive in that there's no 3 gener- -- everything is generated statically. 4 The numbers are all on the tickets to start 5 with, and you -- you know, you basically buy 6 a ticket that has a serial number on it and 7 if your serial number is picked, you win, so 8 that's a passive game. 9 Q. Okay. 10 MR. HAILS: All right. 11 I got a little off track from 12 my outline. 13 Why don't we take a -- a 14 break. I'll see if I can get 15 organized at the break to give 16 ourselves a little bit of flow. 17 Can we break until 10:50 18 Eastern? Does that work for you? 19 THE WITNESS: Yep, 10:50? 20 MR. HAILS: 10:50. So seven 21 minutes. 22 MR. LU: Sure. 23 THE WITNESS: That's fine. 24 MR. HAILS: Thank you.	Page 72 1 store-value cards that is represented in 2 Llach's paragraph 3? 3 A. Give me one second to read it. 4 Q. Sure. 5 A. (Witness reviews document.) 6 It makes sense. 7 Q. Maybe will you explain to me what 8 is your view of the term "stored value cards" 9 as represented in this paragraph? 10 A. A stored value card is a -- a card 11 that can record a bal- -- a financial 12 balance, hence the term "stored value." It 13 stores a value on it. 14 Q. Okay. Is a -- is a credit card an 15 example -- an example of a stored value card? 16 A. No, it's not. 17 Q. Okay. How do they differ? 18 A. A -- a credit card is a -- a card 19 that's used to conduct credit transactions; 20 in other words, you -- you purchase an item, 21 and you are charged for that item and you -- 22 and the credit card provider fronts you the 23 money for it, and bills you for it later and 24 that's how a credit card works.
Page 71 1 - - - 2 (Whereupon, there was a brief 3 recess held off the record at 10:43 4 a.m. EST.) 5 - - - 6 (Back on the record at 10:51 7 a.m. EST.) 8 - - - 9 MR. HAILS: Give me a second, 10 and I'll resume the Share. 11 BY MR. HAILS: 12 Q. On the Share, I'm sharing the cover 13 of the Llach reference Exhibit-1006; do you 14 see that? 15 A. I do. 16 Q. All right. Let's switch to the 17 text. 18 I will share with you Llach's 19 Background Discussion, and I'd like you to 20 focus on paragraph 3B of the "Background"; do 21 you see that? 22 A. I do. 23 Q. Do you agree with the 24 characterization of the market for	Page 73 1 Q. Is a debit card an example of a 2 stored value card? 3 A. No, it's not. A debit card is a 4 card -- again, it's another payment 5 instrument, but it's linked to your bank 6 account, so that the value is stored in your 7 bank account, and it's always referenced to 8 your bank account. 9 Q. Okay. Can you give me some modern 10 commercial examples of what might be a stored 11 value card? 12 A. Gift card, an American Express gift 13 card. 14 Q. Okay. 15 A. A restaurant gift card. 16 Q. And, so, I -- I could buy, for 17 example, an American Express gift card at 18 \$100, and, then, that card has a value of 19 \$100 in that example; is that correct? 20 A. Correct, right. 21 Q. All right. 22 How about things like Starbucks 23 cards, or -- or things from different 24 merchants?

19 (Pages 70 - 73)

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

20 (Pages 74 - 77)

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

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

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Page 86 1 Q. Okay. And the reconciliation with 2 the provider of the phone cards, is that a 3 function that would be ascribed to the store 4 back office? 5 A. Yes. 6 Q. Okay. Let's go to your 7 declaration. 8 MR. HAILS: Give me one 9 second. One of the beautiful 10 things about Zoom is that all of 11 the controls of Zoom overlap with 12 the controls for Adobe, which makes 13 it harder to access the buttons. 14 Okay. So we are switching to 15 your declaration. 16 BY MR. HAILS: 17 Q. This is Exhibit-103, and we're 18 looking at paragraph 257 of that declaration; 19 do you see it? 20 A. I do. 21 Q. All right. 22 And here we were talking about 23 modifying the Szrek system to provide 24 generation of Quick Pick -- Quick Pick	Page 88 1 Would you explain how a pseudo 2 random number generator operates? 3 A. A pseudo number -- random number 4 generates by -- randomly, it generates a 5 sequence of numbers from a seed, and given a 6 one seed -- given any particular seed, the 7 sequence of numbers can be predicted, which 8 is why it's called "pseudo random." It's not 9 actually random. 10 And, so, if you had only one random 11 number generator and one seed, you would have 12 a predictable -- predictable set of numbers, 13 and you might not actually generate a 14 representative distribution of those numbers 15 that sim- -- that would be generated by 16 player population playing at terminals, 17 picking their own numbers. 18 You would have -- you would be 19 better to generate a more even distribution 20 because you had a whole -- a whole bunch of 21 distinct random number generators all 22 starting from a different seed, so you'd have 23 a much more randomized and even distribution. 24 Also, it would put less load on the
Page 87 1 numbers at the cash register, or at a -- a 2 transaction computer; do you see that? 3 A. I do. 4 Q. All right. 5 And you describe a variety of 6 motivations that are provided to a person of 7 organized skill in the art; do you see those? 8 A. Yes. 9 Q. Okay. One is to distribute the 10 generation of numbers away from the central 11 office, as taught by Gilmore. You suggest 12 that it could be performed by the cash 13 register, or the transaction computer to do 14 so. 15 What are the advantages of moving 16 the random number generator function of a 17 lottery ticket system to, for example, the 18 cash register? 19 A. You would have a more even 20 distribution of the random pick numbers than 21 if they were picked by single pseudo numb- -- 22 single pseudo random number generator. Yeah, 23 there you go. 24 Q. I don't quite understand that.	Page 89 1 central system because, as I just mentioned, 2 if you have one random number generator 3 because it's a pseudo random number 4 generator, if you know the seed, you can 5 predict the sequence of numbers. 6 If you were doing an essential, you 7 would -- you would want to have more than one 8 random number sequence being generated, so 9 you can distribute a more even number, and it 10 would be more complex. So having it 11 generated at the Point Of Sale would be more 12 easily -- more closely simulate the numbers 13 being played by players while still 14 generating an even distribution of wagers. 15 Q. So I've -- I've seen pseudo-random 16 generators in other contexts, and I want to 17 make sure I understand. And I do understand 18 that pseudo-random number generation may have 19 a predictability element to it. 20 But are the numbers themselves that 21 are generated unevenly distributed in a 22 random-number generator? 23 A. Ideally, after -- an ideal -- a 24 good ran- -- pseudo-random number generator

1 should generate a completely flat
2 distribution to give you a rough example.
3 given.

4 Q. Okay. And does that -- is -- does
5 that occur in a lottery system? I would
6 expect yes.

7 A. In a lottery system, the -- the
8 random-number generators are very, very
9 sophisticated, and are tested, in fact, with
10 the network to ensure that they provide an
11 even -- even distribution, and some
12 implementations in the past have actually
13 been shut down because that -- they were --
14 they weren't generating predictable sequence
15 of numbers. So the system's designed to
16 generate an even distribution.

17 Q. Okay. And, then, you -- part of
18 your answer referred to load on a server.

19 Would you explain that concept to
20 me.

21 A. Well, load on the server is --
22 obviously, load on the server is the number
23 of computations it's being asked to perform,
24 as well as the amount of data it's expected

1 to handle simultaneously, the memory. So the
2 more functions you ask a server to do,
3 specifically adding more random-number
4 generation pieces, that increases the load on
5 the server because it requires computer
6 resources to generate each random number --
7 to try each random-number generator, and it
8 takes some amount of memory to go -- to
9 support the random-number algorithm.

10 Q. Okay. And is generating random
11 numbers a resource-expensive task?

12 A. Depending on the algorithm, it can
13 be.

14 Q. Okay. If you were applied to a
15 Point Of Sale terminal, do all lottery
16 tickets use -- excuse me, scratch that.

17 Do all lottery ticket products use
18 the same random-number generators?

19 A. No.

20 Q. You just said they have to be
21 certified in some manner; is that correct?

22 A. Yes.

23 Q. Okay. So different product vendors
24 will have to certify that their random-number

1 generators meet certification requirements?

2 A. Yes.

3 Q. Okay. And, so, if they -- if the
4 random-number generator were to be ported
5 into a cash register, the cash register would
6 have to have functionality to perform each of
7 the random-number generation functions of
8 each of the products that it supports; is
9 that correct?

10 A. Right.

11 But the -- yes, it would. Yes.

12 Q. Okay. What's involved in
13 programming a cash register to generate
14 random numbers for a Quick ticket -- Quick
15 Pick ticket?

16 A. You would need to -- first of all,
17 it would need to be a sophisticated-enough
18 cash register that it can be, in fact,
19 programmed in a general way.

20 And, then, you would need to
21 program the random-number algorithm into --
22 you would need to add a lottery function
23 module to the software in the -- in the cash
24 register, and part of that lottery function

1 module would be the random-number generators.

2 So you would have to write that
3 piece of software, and, then, integrate it
4 with the cash register software.

5 Q. And that process would have to be
6 repeated for the different products that the
7 cash register supports?

8 A. No. You could probably write --
9 depending on the jurisdiction and the games
10 and the exact circumstances, you might be
11 able to get away with a single random-number
12 generator because you're only generating
13 Pick 3s or Pick 4s, something like that.

14 Q. I -- I didn't quite understand that
15 answer, so I want to make sure that -- that
16 we're on the same page.

17 If we have a cash register that
18 supports four different Quick Pick products,
19 is it correct that the cash register would
20 have to have the random number generator
21 algorithms for each of those four products?

22 A. It could be, but it does not
23 necessarily have to. It depends on the
24 implementation and the requirements.

Page 94 1 If there was a requirement that 2 the -- that they use different random-number 3 generators, then, they would need to. But if 4 it's not a -- not a requirement that they use 5 different random-number generators, then, you 6 could certainly use a single random-number 7 generator to generate all of them. 8 Q. And I'd like you to please explain 9 how that relates to your answer about 10 certification of random-number generators 11 earlier. So let's -- let's take this piece 12 by piece. 13 First, I thought you had explained 14 that providers of these lottery services have 15 to certify that their random-number 16 generators meet certain requirements; is that 17 correct? 18 A. Correct. 19 Q. Okay. And -- and as part of that 20 certification, the distribution of randomly 21 selected numbers is a requirement; is that 22 correct? 23 A. That's correct. 24 Q. Okay. And, so, if those	Page 96 1 three products. 2 Q. Okay. And -- and the cash 3 registers are maintained by the retailers in 4 which they are used; is that correct? 5 A. Or the vendor of the cash register 6 systems. 7 Q. Okay. And, so, who would perform 8 the -- the re-programming of the cash 9 register in your hypothetical? 10 A. Even the cash -- probably the cash 11 register vendor in most cases. 12 Q. In your hypothetical, the vendor is 13 distinct from the administrator of the 14 lottery service; is that correct? 15 A. Yes, the cash register vendor, 16 you're referring to? 17 Q. The -- correct. 18 A. Yes, they're distinct. 19 Q. Okay. So in your hypothetical, the 20 cash register vendor needs to generate 21 programming to support however many lottery 22 systems -- scratch -- scratch that. 23 In your hypothetical, the cash 24 register vendor needs to generate programming
Page 95 1 random-number generators, then, are reported 2 to a cash register, would the same 3 certification requirements apply? 4 A. Presumably. I would say so, yes. 5 Q. Okay. And if a certifi- -- sorry, 6 scratch that question. 7 And if a POS system is configured 8 to provide random-number generators for four 9 different products, would it not have to meet 10 the certification requirements for each of 11 those products? 12 A. It could be possible to certify a 13 random-number generator with any number of 14 products. So if I -- if I -- right. I just 15 need to certify my random-number generator. 16 So if the requirement is that I 17 need to generate random numbers for three 18 different products, then, I would need to 19 certify that my random-number generator was 20 sufficient for the three products that it's 21 being applied to. 22 I would certify for those three 23 products. It would have to be certified 24 to -- to generate random numbers for those	Page 97 1 to support -- many lottery products are going 2 to be supported by the retailer; is that 3 correct? 4 A. If they're going to use Quick Picks 5 that need to be certified, then, yes. 6 Q. Okay. 7 MR. HAILS: Gilmore, I want to 8 share -- all right. 9 I'm going to switch to a 10 different reference, Gilmore. 11 BY MR. HAILS: 12 Q. This is Exhibit-1029. And in the 13 screen share -- I have the split screen going 14 with Gilmore's cover on the left, and Figure 15 1 from Gilmore on the right; do you see that? 16 A. I do. 17 Q. Okay. And let's look at Figure 1. 18 The -- the reference number is 8, 19 that are shown here in this circle by the POS 20 terminals; is that correct? 21 A. I don't know. I need to look at 22 the text of Gilmore. 23 Q. Not a memory test. I'm happy to -- 24 A. All right.

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

Page 102 1 your declaration one more time. 2 Hold on one second. 3 BY MR. HAILS: 4 Q. If you look at -- this is Page 74 5 of your declaration, Exhibit-1003, and 6 paragraph 180. 7 And this is your rationale to 8 combine Szrek and Llach; do you see that? 9 A. Yes. 10 Q. Okay. I'd like to -- here you 11 say -- 12 MR. HAILS: And I'm going to 13 bring up Szrek's figures. 14 BY MR. HAILS: 15 Q. In your opinion, Seeda (ph.) would 16 have found it obvious to modify Szrek's 17 system for activating lottery tickets to 18 incorporate Llach's teachings of an 19 intermediary transaction computer between 20 Szrek's cash register and the game provider 21 systems. 22 So I'd like to make sure I 23 understand how that's going to work in the 24 context of Figure 2.	Page 104 1 And I'd like to put an arrow to 2 show communication flow. And originally I 3 had it extending from the new box, and, then, 4 from the new box to the game provider, and 5 I'd like to make sure I show communication 6 flow accurately, as you expect it's going to 7 work. 8 So is it appropriate to show arrows 9 from the store back office to the 10 intermediary transaction computer, and, then, 11 further to the game provider? 12 A. Yes. 13 Q. Okay. And, so, in this 14 modification, is it correct that the cash 15 register would scan a ticket and issue a 16 communication to the store back office as -- 17 as described in this figure? 18 A. Yes. 19 Q. Okay. And, then, there's already a 20 ticket activation request that extends 21 between the store back office 240 and the 22 game provider in 250? 23 A. Yes. 24 Q. Why don't you explain to me, then,
Page 103 1 You say you're going to add an 2 intermediary transaction computer between the 3 Cash Register 230 and the Game Provider 4 System 250; is that correct? 5 A. Yes. 6 Q. Okay. So if I add a box to 7 Szrek -- here we go -- I'd like to generate 8 a -- yeah, pictorial representation of this. 9 So if I add a box, call it a 10 transaction computer, and I put it with 11 arrows connecting the cash register to the 12 game provider, does that accurately represent 13 the modification that would be performed to 14 Szrek's system -- 15 A. No. 16 Q. -- that's represented in 17 paragraph 180? 18 A. No. 19 Q. All right. 20 How would you modify this drawing? 21 A. I would put the -- your new box in 22 between the store back office and the game 23 provider. 24 Q. Oh, I see. All right.	Page 105 1 how the -- the scan of the ticket would be 2 accommodated in a modified Figure 2 diagram. 3 A. Okay. So, first of all, the ticket 4 activation request an activation response. 5 The existing ones would go away -- 6 Q. Okay. 7 A. -- replaced by the two blue arrows, 8 which would be -- should be labeled "Ticket 9 Activation Request" and "Activation Request." 10 Q. All right. 11 So I've just drawn a red line 12 through the existing arrow labeled 13 "Activation Request" and "Activation 14 Responses" because you said they go away; is 15 that correct? 16 A. Right. 17 MR. HAILS: Give me -- give me 18 a moment, please. I want to use 19 the properties Bar Code. I don't 20 know why it's red inside, but 21 that's fine. 22 Okay. So, now, I've modified 23 my modification. 24

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Page 106 1 BY MR. HAILS: 2 Q. And in Figure 2, we show a store 3 back office 240 as originally provided. 4 We've got my new box called an intermediary 5 transaction computer, which is hovering in 6 the negative space between the back office 7 240 and the game provider 250; do you see all 8 of that? 9 A. I do. 10 Q. Okay. And, then, we've got two 11 pairs of arrows. One pair of arrows extends 12 between the store back office 240 and my new 13 box, the intermediary transaction computer; 14 is that right? 15 A. Right. 16 Q. Okay. Now, we've got a second pair 17 of arrows extending between the intermediary 18 transaction computer and the Game Provider 19 250; do you see that? 20 A. I do. 21 Q. Okay. And does this modification 22 of Figure 2 accurately represent what you 23 were describing in this paragraph 180 of your 24 declaration?	Page 108 1 the Activation Response that comes back. 2 In Figure -- the -- the modified 3 Figure 2 that we have, we have a -- an arrow 4 extending from the game provider to the 5 intermediary transaction computer, and, then, 6 a second arrow extending from the 7 intermediary transaction computer to the 8 store back office. 9 And my question is: In that data 10 flow, was it carrying the Activation Response 11 that's in Szrek's original Figure 2? 12 A. Yes, it is. 13 Q. Okay. 14 MR. HAILS: Let's switch to 15 Gilmore, and let's look at 16 Figure 2A and 2B from Gilmore. 17 BY MR. HAILS: 18 Q. Gilmore refers to this as a -- 19 well, scratch that, I'm sorry. 20 MR. HAILS: Okay. I recommend 21 taking a break. I think I'm nearly 22 done, but I want to go through my 23 notes, and do a little mop up and 24 see if I have anything left.
Page 107 1 A. Yes, it does. 2 Q. Okay. Okay. 3 And, so -- and let's make sure I 4 understand the communication flow. 5 You said we -- and correct me if 6 I'm wrong, but I think we're replacing the 7 Ticket Activation Request and Activation 8 Responses from the original figure with these 9 flows. 10 So let's -- let's take -- let's 11 take the overall flow from the Store Back 12 Office 240 to the intermediary transaction 13 computer, and, then, further to the game 14 provider. There's a para -- there's one 15 arrow, each pair, that extends in that 16 direction. 17 Am I correct that in the flow from 18 the store back office through the 19 intermediary transaction computer, and, then, 20 to the game provider, that data flow is 21 carrying the Ticket Activation Request that 22 is in Szrek's original Figure 2? 23 A. Correct. 24 Q. Okay. And, then, same question for	Page 109 1 So how about we convene at 2 11:50 Eastern; does that work for 3 you guys? 4 MR. LU: Yes, that's fine. 5 THE WITNESS: Sure. 6 MR. HAILS: All right. 7 - - - 8 (Whereupon, there was a brief 9 recess held off the record at 11:38 10 a.m. EST.) 11 - - - 12 (Back on record at 11:51 a.m. 13 EST.) 14 - - - 15 MR. HAILS: All right. 16 I will re-do my share. Just 17 so we're -- I think we're going to 18 mark the modified version of Szrek 19 as an exhibit. So in the -- during 20 the break I've added a Legend to 21 this copy of Szrek. 22 I'm not competent enough to be 23 able to keep InComm's markings of 24 Exhibit -- I think it's 1005, and,

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Page 110 1 then, add this new one, so I had to 2 delete it just because time was 3 short. 4 Let me show you what I've 5 done. All right. 6 BY MR. HAILS: 7 Q. So there are exhibit markings down 8 at the bottom. 9 Szrek -- I want you to just confirm 10 you still see the -- the modifications of 11 Szrek's Figure 2 in the way we discussed 12 prior to the break, but now in this copy that 13 has its own Exhibit number 2049; do you see 14 that? 15 A. Yes. 16 Q. Okay, great. 17 And, so, you agree that it still 18 reflects the modification of Figure 2 of 19 Szrek as we discussed prior to the break? 20 A. Yes. 21 Q. Okay, great. 22 MR. HAILS: Okay. Then, we 23 will pass the witness. Thank you. 24	Page 112 1 A. Yes, it does. 2 Q. In that embodiment, does the cash 3 register need to communicate with the back 4 office to activate a preprinted lottery 5 ticket? 6 A. Not in that embodiment. 7 Q. In that embodiment, could the 8 integrated accounting that's described 9 elsewhere occur without the back office? 10 A. Only for the lottery transactions. 11 Q. Do you recall testifying that it 12 would be obvious to place a lost transaction 13 processor between Szrek's back office and a 14 game provider as depicted in Exhibit-2049 15 that counsel diagrammed? 16 A. And the question was again? 17 Q. Do you recall earlier -- 18 A. Yes, I do. 19 Q. -- but let's -- let's have a clean 20 record. 21 So do you recall before the break 22 testifying that it would be obvious to place 23 Llach's transaction processor between Szrek's 24 back office and the game provider?
Page 111 1 MR. LU: Okay. I just have a 2 couple of questions. 3 - - - 4 CROSS-EXAMINATION 5 - - - 6 BY MR. LU: 7 Q. Mr. Hutton, can you turn to the 8 Szrek Patent at Column 3, starting on 9 Line 14? 10 A. (Witness complies.) 11 Yes. 12 Q. And it says, "To carry out the 13 present invention, it is assumed that an 14 environment is provided where the cash 15 register is capable of communicating with the 16 game provider system directly or indirectly 17 and the game provider system or some other 18 system on behalf of the game provider system 19 is authorizing cash registers' lottery 20 transactions"; do you see that? 21 A. I do. 22 Q. So does this passage say that the 23 cash register can communicate directly with 24 the game provider system?	Page 113 1 A. I recall that, yes. 2 Q. Would it also be obvious to place a 3 transaction processor in-between the cash 4 register and the game provider? 5 A. Yes, it would. 6 MR. LU: I have no further 7 questions. 8 MR. HAILS: I do have some 9 follow up, all right? 10 - - - 11 RE-DIRECT EXAMINATION 12 - - - 13 BY MR. HAILS: 14 Q. You were asked about what happens 15 to integrated accounting without the back 16 office; do you recall that? 17 A. I was asked about that, yes. 18 Q. Okay. 19 MR. HAILS: Let's look at 20 Szrek again. 21 BY MR. HAILS: 22 Q. All right. 23 We're at Szrek, and we've got -- 24 this is the now Exhibit-2049, and we've got

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

Page 118 1 Q. Okay. So in the lottery 2 implementation, if you have a store back 3 office there, is it correct that the store 4 back office would create a transaction log 5 that can be reconciled with a game provider 6 at some later appointment? 7 A. Yes. 8 Q. Okay. Okay. 9 And, so, now, the store back office 10 is gone. 11 How would the reconciliation 12 accounting be performed when the cash 13 register is communicating directly with the 14 game provider? 15 A. The reconciliation would have to be 16 done between some readout. I mean, the most 17 primitive way would be -- you would print out 18 basically the transaction log from the cash 19 register, and the game provider system would 20 provide a reconciliation report and, then, 21 you need to match them. 22 Q. Okay. When we were preparing this 23 Exhibit-249 -- 2049, an earlier version -- I 24 had the intermediary transaction computer	Page 120 1 have it now, or the way it was before? 2 Q. The way it was before. 3 A. Okay. Because the diagram has the 4 store back office in it, I was responding to 5 your question about this diagram -- how the 6 modification would apply to the diagram. If 7 you erase the store back office, then, your 8 original configuration would be correct. 9 Q. I see. So with that modification, 10 are you replacing the store back office with 11 the intermediary transaction computer? 12 A. No. I am just putting in the -- if 13 there's no store back office and the cash 14 register's -- and the cash register is the 15 still talking directly to the -- and the cash 16 register's not using the store back office to 17 do these lottery transactions, it would -- 18 certainly could talk to the intermediary 19 transaction computer. 20 Q. Okay. So I'm having a tough time 21 understanding your testimony. 22 MR. HAILS: Let's go to -- 23 that's not it -- paragraph 180. 24
Page 119 1 provided any communication between the cash 2 register and the game provider; do you recall 3 that discussion? 4 A. I do. 5 Q. And I had arrows extending from the 6 cash register to the intermediary transaction 7 computer, and, then, another arrow extending 8 from the intermediary transaction computer to 9 the Game Provider 250 -- 10 A. Yeah. 11 Q. -- do you recall that? 12 A. I do. 13 Q. They were double-headed arrows; do 14 you recall that? 15 A. I do. 16 Q. Okay. And I asked you if that was 17 the setup -- scratch that. 18 I asked you if that was the 19 modification of Szrek that you had envisioned 20 in paragraph 180 of your declaration, do you 21 remember that? 22 A. I do. 23 Q. You told me no. 24 A. Well, when you had -- the way you	Page 121 1 BY MR. HAILS: 2 Q. It says, "It would have found it 3 obvious to modify Szrek's system for 4 activated tickets to incorporate Llach's 5 teachings of intermediary transaction 6 computer between the cash register and the 7 game provider system"; is that right? 8 A. Yes. 9 Q. Okay. And I had drawn -- and 10 there's no discussion here of erasing 11 anything, right? 12 A. No, not there. 13 Q. There's no discussion actually of 14 the -- of the back office at all? 15 A. No, there's not. 16 Q. Okay. And, so, I -- I drew -- I'll 17 do this again, I guess -- let's do it again. 18 I draw an intermediary transaction 19 computer box, which I'm doing again on 20 Exhibit-1005, and this was not -- all right. 21 So we've got -- I've now taken 22 Szrek's Figure 2, and I've drawn another -- 23 another copy. So right now, it's 1005, but 24 we're modifying it, and I've taken an

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

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Page 126 1 Q. Show me where it is. 2 A. I said, "I did not." 3 Q. Oh, you did not, okay. 4 And you did not provide a 5 declaration of the term "Point of Sale" in 6 your declaration, did you? 7 A. No, I did not, because a person of 8 ordinary skill would understand that "Point 9 Of Sale" and "cash register" was, in fact, a 10 Point Of Sale, and the terms are often used 11 interchangeably in the -- in the industry. 12 Q. Okay. And, so, if they're 13 interchangeable, so when Szrek uses the term 14 "cash register" in Figure 2, someone would 15 understand that the Cash Register 230 is the 16 Point Of Sale; is that correct? 17 A. Yes. 18 Q. I didn't catch an answer. 19 Was there an answer? 20 A. I said, "yes." 21 Q. Thank you. 22 MR. HAILS: Okay. I'll pass 23 the witness. Thank you. 24 MR. LU: Just a couple	Page 128 1 Exhibit-2050, the intermediary transaction 2 computer is directly between the cash 3 register and the game provider, correct? 4 A. In that diagram, yes. 5 Q. Does the cash register still 6 communicate with the back office to perform 7 whatever function necessary by the back 8 office? 9 A. Yes. 10 Q. Okay. 11 MR. LU: No further questions. 12 MR. HAILS: Okay. 13 Quincy, you're correct, this 14 will become an exhibit, and it will 15 become Exhibit, I guess, 2050, if I 16 have my numbering correct. It 17 takes me a little time to get my 18 act together. 19 - - - 20 (Whereupon, Exhibit-2050, 21 Screenshot, was marked for 22 identification.) 23 - - - 24 What I propose to do is to
Page 127 1 clarifying questions. 2 - - - 3 RE-CROSS-EXAMINATION 4 - - - 5 MR. LU: So let's leave the -- 6 the Zoom up, if you could, Bob. 7 BY MR. LU: 8 Q. So in paragraph 180 you say, 9 "Incorporate Llach's teaching of intermediary 10 transaction computer between Szrek's cash 11 register and the game provider system." 12 If you recall the diagram where the 13 intermediary transaction computer is between 14 the store back office and the game 15 provider -- 16 A. Yes. 17 Q. -- would it also still be between 18 the cash register and the game provider, 19 despite the presence of the back office, even 20 if indirectly? 21 A. If -- I don't quite understand. 22 Q. So, in this diagram on the right, 23 which we haven't labeled as an exhibit yet, 24 but I -- I assume it's going to be	Page 129 1 send both of these -- I'll mark 2 it -- so I'll just send you a 3 screenshot right now, just so we're 4 on the same page. 5 And, then, I would propose to 6 mark them both, and send them to 7 the court reporter and ask her to 8 append them to the transcript when 9 it is ready. 10 MR. LU: If you'll -- it -- 11 it's up to you. I think the most 12 straightforward -- you don't 13 necessarily have to send it to us. 14 I think the most 15 straightforward thing is when you 16 file your -- where are we at here, 17 your response -- 18 MR. HAILS: Yep. 19 MR. LU: -- you can just 20 include them as exhibits. 21 MR. HAILS: Okay. 22 MR. LU: Yeah. 23 MR. HAILS: Okay. All right. 24 That sounds good. So, then, I

Page 130 1 don't have to stress about how to 2 get this done. It was... 3 MR. LU: Yeah, no, you don't 4 have to do it now. 5 MR. HAILS: All right. I 6 think we are done. 7 Let's go off the record. 8 - - - 9 (Whereupon, there was a brief 10 discussion held off the record at 11 12:12 a.m. EST.) 12 - - - 13 MR. HAILS: Mary, did you have 14 any questions about terminology or 15 anything like that? 16 THE COURT REPORTER: No, just 17 did anyone want a copy? 18 MR. HAILS: Yes. I'd like a 19 rough immediately. And, then, I -- 20 and I think we had asked for a 21 Monday turnaround, something like 22 that -- 23 THE COURT REPORTER: Yes, 24 okay.	Page 132 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  11 Mary Hammond 12 October 16, 2024 13 14 (The foregoing certification 15 of this transcript does not apply 16 to any reproduction of the same by 17 any means, unless under the direct 18 control and/or supervision of the 19 Certified Shorthand Reporter.) 20 21 22 23 24
Page 131 1 MR. HAILS: -- according to 2 the order. 3 THE COURT REPORTER: Yes, 4 okay. 5 MR. LU: I don't -- I don't 6 need a copy. I don't need a copy. 7 I don't know if I need to clarify, 8 but Bob pronounced the reference as 9 "Llach," and you pronounce it as 10 Llach. 11 - - - 12 (Whereupon, the witness was 13 excused at this time.) 14 - - - 15 (Whereupon, the deposition 16 concluded at 12:13 p.m.) 17 18 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.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS

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