

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2 -----
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD
4 -----

5 INTERACTIVE COMMUNICATIONS

6 INTERNATIONAL, INC.,

7 Petitioner,

8 v.

9 BLACKHAWK NETWORK INC.,

10 Patent Owner.
11 -----

12 Case No. IPR2024-00465

13 U.S. Patent No. 11,488,451
14

15 DEPOSITION OF JEFFREY MILLER, Ph.D.

16 Conducted Virtually

17 Tuesday, January 14, 2025

18 10:00 a.m. PST
19
20
21

22 Job No.: 7106270

23 Pages: 1 - 50

24 Reported By: Debra Bollman Farfan, RDR, CRR, CRC

25 CA CSR No. 11648

Page 1

1 DEPOSITION OF JEFFREY MILLER, Ph.D., held
2 virtually.

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5 Pursuant to notice, before Debra Bollman
6 Farfan, Certified Shorthand Reporter, in and for
7 the State of California.

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A P P E A R A N C E S
ON BEHALF OF PETITIONER INTERACTIVE
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I N D E X

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Examination By Mr. Lu	5

I N D E X O F E X H I B I T S
(Exhibits are not attached to the transcript.)

DESCRIPTION	PAGE
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P R O C E E D I N G S

* * * * *

THE REPORTER: Counsel, please state your appearances for the record.

MR. LU: Quincy Lu on behalf of petitioner.

MR. HAILS: Robert Hails on behalf of patent owner, Blackhawk.

Whereupon,

JEFFREY MILLER, Ph.D.,

called as a witness, was duly sworn and testified under penalty of perjury as follows:

EXAMINATION

BY MR. LU:

Q. Good morning, Dr. Miller.

A. Good morning.

Q. Could you state your name for the record?

A. Yes. Jeffrey Miller.

Q. And, Dr. Miller, where are you located today?

A. I'm in Cedar City, Utah.

Q. And is there anybody in the room with you right now?

A. No.

Q. Do you have any note -- let's start with do you have any documents in front of you?

1 A. Yes.

2 Q. What documents are those?

3 A. I have my declaration, a printed copy of
4 it, for the '451 patent.

5 Q. And just to confirm that, what's the
6 exhibit number on that declaration?

7 A. It's Blackhawk Exhibit 2052.0001.

8 Q. Okay. I believe the 001 is the page
9 number. So it should be Exhibit 2052. Thank you.
10 Do you have any other documents in front of
11 you?

12 (Deposition Exhibit No. 2052 was marked for
13 identification.)

14 A. No.

15 Q. Do you have virtual copies of the prior art
16 in this case? Let me ask it this way, do you have
17 any virtual copies of any documents that were filed
18 in this proceeding accessible right now?

19 A. I don't have any documents open on my
20 computer right now.

21 Q. Are you familiar with a document, a prior
22 art reference called Irwin?

23 A. Yes.

24 Q. If I started to ask you questions about it,
25 would you have an electronic copy available for you

1 to look at or would I need to send it to you?

2 MR. HAILS: Actually, I'd like you to
3 provide copies of whatever materials he's going to
4 look at.

5 MR. LU: Okay. Sure. We can do it that
6 way.

7 MR. HAILS: Thank you.

8 MR. LU: Well, let me clarify, Counsel.
9 Since he already has a copy of his declaration, I'm
10 not going to actually send that over to him. Is
11 that okay?

12 MR. HAILS: Yeah, that sounds appropriate.

13 BY MR. LU:

14 Q. Do you have any notes in front of you or
15 open on your computer?

16 A. No.

17 Q. Professor Miller, what is your current
18 position?

19 A. I'm the dean of the college of engineering
20 and computational sciences, and a professor of
21 computer science at Southern Utah University.

22 Q. And could you just go over your education
23 history? Like which degrees have you received and
24 at which institutions?

25 A. I have a bachelor of science degree from

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1 the University of Southern California in computer
2 engineering and computer science. I have a master
3 of science degree in computer science, also from
4 the University of Southern California. And I have
5 a Ph.D. in computer science, also from the
6 University of Southern California.

7 Q. And what year did you receive your bachelor
8 degree?

9 A. I received my bachelor's degree in 2002.

10 Q. And what year did you receive your master's
11 degree?

12 A. I received my master's degree also in 2002.

13 Q. And what year did you receive your Ph.D.?

14 A. I received my Ph.D. in 2007.

15 Q. Now -- so in between receiving your
16 master's degree and your Ph.D., it was about five
17 years; is that correct?

18 A. A little less, but, yes, about five years.

19 Q. So were you in the Ph.D. program for the
20 entire five years, or were you doing something else
21 in between?

22 MR. HAILS: Objection. Form.

23 THE WITNESS: I was in the Ph.D. program
24 for that entire time. I also was working during
25 that time, though.

1 BY MR. LU:

2 Q. And where were you working?

3 A. I had a number of different jobs between
4 2002 and 2007.

5 Q. Could you list them for me?

6 A. They're all included in my CV. I could
7 definitely list some of them, but I don't know if I
8 could remember every one of them. But they are on
9 my CV. So if I could see that, I could answer that
10 accurately.

11 Q. Can you just for now list what you can
12 remember?

13 A. I was teaching at California State
14 University, Los Angeles, in the computer science
15 department.

16 Q. Anything else?

17 A. I founded a company during that time called
18 Imaginary Technology that was dealing with
19 point-of-sale systems, both handheld and
20 stand-alone point-of-sale systems.

21 Q. Anything else?

22 A. There were other jobs in there. I don't
23 recall the exact dates of when they were, though.

24 Q. So you said you started a company called
25 Imaginary Technology; is that correct?

1 A. Yes, I founded Imaginary Technology.

2 Q. Did you start it yourself, or did you start
3 it with any colleagues?

4 MR. HAILS: Objection. Form.

5 THE WITNESS: I had a partner in the
6 business.

7 BY MR. LU:

8 Q. Was it just you two working at the company,
9 or were there others?

10 MR. HAILS: Objection. Form.

11 THE WITNESS: The two of us started the
12 company. We did hire employees at the company. So
13 there were others working there during the time I
14 was there.

15 BY MR. LU:

16 Q. Approximately how many people were working
17 there?

18 A. I believe that we had somewhere between
19 seven to ten employees.

20 Q. And how long were you at this company that
21 you started, Imaginary Technology?

22 A. I believe officially I was there for about
23 a year. However, the development of the product
24 that we implemented was longer than that. I was
25 working on the product prior to starting the

1 company.

2 Q. I see. How long -- or when did you begin
3 working on the product, then?

4 A. I don't recall exactly. The concept behind
5 that product was years in the making. I believe it
6 was probably within a year or two prior to starting
7 the company when we began developing it, though.

8 Q. Was this a project that came out of
9 something that you did at USC, or was it something
10 separate?

11 MR. HAILS: Objection. Form.

12 THE WITNESS: No, this was -- had nothing
13 to do with being a student at USC.

14 BY MR. LU:

15 Q. Okay. And then, following your Ph.D., what
16 did you do?

17 A. After I earned my Ph.D., I accepted a
18 full-time position as a faculty member at the
19 University of Alaska, Anchorage, in their computer
20 engineering department.

21 Q. And what were your responsibilities as a
22 faculty member at the University of Alaska?

23 A. The contract had three parts to it,
24 including research, teaching, and service. So
25 there was a teaching requirement of -- I believe it

1 was nine credits a semester. There was a research
2 requirement, which included writing research
3 proposals and publishing papers. And there was
4 also a service component, which required
5 participating in committees, being active in the
6 community, and generally supporting the university.

7 Q. And when did you join the University of
8 Alaska?

9 A. In 2007.

10 Q. And how long were you at the University of
11 Alaska?

12 A. I was there until 2013.

13 Q. Did you ever receive tenure at the
14 University of Alaska?

15 A. Yes.

16 Q. And when was that?

17 A. I believe I earned tenure in 2011.

18 Q. And when you left in 2013, what was your
19 position?

20 A. I was a tenured associate professor.

21 Q. During your time at the University of
22 Alaska, did you do anything -- did you do any work
23 on the side?

24 A. Yes. I did do some consulting while I was
25 at the University of Alaska, and I also worked

1 during the summers. The academic contract,
2 typically, is a nine-month contract, and so I had
3 jobs during the three months of summer as well.

4 Q. What was the nature of the consulting work
5 that you did?

6 A. I did general consulting in the software
7 field for different companies.

8 Q. So you were developing software for
9 different companies on a contractual basis; is that
10 right?

11 A. Yes, that's correct.

12 Q. Do you recall what sort of software you
13 were asked to work on?

14 A. Yes. There were different projects for
15 different companies during that time.

16 Q. What are some of the projects that you can
17 recall?

18 A. One project I worked on was a defense
19 project. It was for a company that had a contract
20 with the U.S. Department of Defense. Another
21 project I worked on was with the state of Alaska,
22 developing an app for their 511 notification
23 system.

24 Q. What's the 511 notification system?

25 A. There was a federal mandate that all states

1 had to implement a 511 system, where when somebody
2 calls 511 from a phone, you can get information
3 about weather conditions. My part, specifically,
4 had to do with traffic conditions and being able to
5 show traffic cameras through the mobile app, the
6 Alaska 511 app. And there's other requirements as
7 well. I worked on a piece of the 511 project.

8 Q. And you said you also worked during the
9 summer. Could you tell me what sort of work you
10 did during the summer?

11 MR. HAILS: Objection. Asked and answered.

12 THE WITNESS: One of the companies I worked
13 for was the company that had the Department of
14 Defense contract. That was during the summer and
15 then extended into the school year as well.

16 Another company I worked for, I was
17 interacting with different potential clients to
18 bring new business into the company. The company
19 was a software development company, though.

20 BY MR. LU:

21 Q. Any other companies you've worked for
22 during your time in Alaska?

23 A. Those are the ones that I recall. But I
24 could confirm that if I looked at my CV.

25 Q. And then after you left the University of

1 Alaska, where did you go?

2 A. I joined the faculty at the University of
3 Southern California.

4 Q. Which department?

5 A. I joined the computer science department.

6 Q. And what was your position when you joined?

7 A. I was an associate professor of computer
8 science practice.

9 Q. And how long were you at USC?

10 A. I was there for six years.

11 Q. And what were your responsibilities as part
12 of the faculty of USC?

13 A. The position that I joined at USC had two
14 parts to the contract, which was teaching and
15 service. Similar roles to what I explained at the
16 University of Alaska, of teaching different
17 computer science classes during the fall and spring
18 semesters as well as providing service to the
19 University or professional societies, the
20 community, and generally supporting the University.

21 Q. I may have missed this. Did you say you
22 did any research while at the University of Alaska?

23 A. I don't know if I said that I did; but,
24 yes, I did perform research while at the University
25 of Alaska.

1 Q. What was the nature of that research?

2 A. My research is in two different areas. One
3 is related to the technology utilized in driverless
4 vehicles, the algorithms that are used in them, as
5 well as the networking involved and the ethics that
6 are included as well.

7 I also performed research in STEM
8 education -- science, technology, engineering, and
9 mathematics -- from kindergarten through graduate
10 school.

11 Q. What was the nature of your K-12 STEM
12 research?

13 A. I was looking at how there's a disconnect
14 between the K-12 system and higher education in
15 getting students interested and knowledgeable about
16 STEM fields.

17 So I had projects where I was educating
18 K-12 students in different STEM fields, and then
19 analyzing how their interests in the fields changed
20 prior to that education and after that education,
21 and then tracking, longer term, how many of them
22 continued on into different STEM fields when they
23 were selecting a major in college.

24 Q. That sounds pretty interesting.

25 What were the sort of STEM courses you were

1 teaching K-12 students? Was it just computer
2 science, or were you teaching other types of STEM
3 courses?

4 A. No, not just computer science. So we had
5 robotics. We did have computer programming. We
6 had civil engineering topics and building
7 structures. We had ham radio, some electrical
8 engineering projects as well. We had renewable
9 energy with solar boats.

10 So there were a number of different topics
11 that students or parents could choose so that they
12 could just get an understanding of many different
13 aspects behind STEM fields and become more
14 knowledgeable about them prior to getting to
15 college and having to choose a major.

16 Q. And were you working at public schools or
17 private schools or both?

18 MR. HAILS: Objection. Form.

19 THE WITNESS: I wasn't working at public or
20 private schools. This was a project for my
21 research at the University. And so we had programs
22 that were at the University, and then students from
23 the community would come and attend those.

24 BY MR. LU:

25 Q. I see. And what was the grade level of the

1 courses that you were offering, like what age of
2 the kids that you were teaching?

3 A. We did all the way from kindergarten
4 through 12th grade.

5 Q. Okay. So it's a pretty wide range.

6 Okay. So going back to your time at USC,
7 did you do any research there?

8 A. Yes.

9 Q. And what was the nature of your research at
10 USC?

11 A. Primarily it was the same two areas that I
12 just described. So looking with driverless
13 vehicles. And as my research progressed over time,
14 when I was at USC, I was looking into the ethics
15 involved with driverless vehicles.

16 And also continuing my K-12 research. And
17 I ran a similar K-12 outreach program at USC to the
18 one that I just explained I was running at the
19 University of Alaska.

20 Q. So were these like summer camps, or were
21 they offered year-round?

22 A. At the University of Alaska, they were
23 summer camps. At USC they began as summer camps,
24 and then expanded to be offered year-round.

25 Q. Okay. And then you said -- sorry, let me

1 ask this.

2 When did you leave USC?

3 A. I left USC in 2022.

4 Q. And then where did you join after USC?

5 A. When I left USC, I accepted my current
6 position at Southern Utah University.

7 Q. Okay. And what are your -- what's the
8 nature of your responsibilities at your current
9 position?

10 A. As the dean of the College of Engineering
11 and Computational Sciences, I oversee four
12 departments that are part of the college, which is
13 the Department of Computer Science and
14 Cybersecurity, the Department of Engineering and
15 Technology, the Department of Mathematics, and the
16 Department of Aviation Sciences.

17 Q. And, sorry, I forgot to ask this. But
18 while you were at USC, did you do any work on the
19 side?

20 A. Yes.

21 Q. And what was the nature of that work?

22 A. I did some consulting as well as being part
23 of a company that my wife and I founded for
24 expanding the education of STEM to K-12 students,
25 outside of the local university area.

1 In addition, I became more involved in my
2 expert witness work at that time.

3 Q. When did you start doing expert witness
4 work?

5 A. When I was a Ph.D. student at USC, my
6 advisor did expert witness work, and he used me on
7 a couple cases with him to assist him. I wasn't an
8 expert witness on those, but I assisted him on
9 cases where he was the expert witness.

10 I believe that my first case where I was
11 retained as an expert was in -- somewhere around
12 2012 or '13.

13 Q. And approximately how many cases have you
14 worked on as an expert?

15 A. I believe around 45.

16 Q. And are they mostly patent cases, or were
17 there other types of cases?

18 MR. HAILS: Objection. Form.

19 THE WITNESS: I worked on a number of
20 different types of cases. On my CV, I have a
21 breakdown of the different types.

22 BY MR. LU:

23 Q. Approximately how much have you billed as a
24 litigation expert? In terms of dollar amounts.

25 A. I don't know.

1 Q. Do you have an approximation?

2 A. No.

3 Q. Is it less than a million dollars?

4 A. I don't know.

5 Q. You don't have any idea at all?

6 A. No. I don't know how much I've billed as
7 an expert witness in my career.

8 Q. Okay. What about the last five years? How
9 much have you billed?

10 A. I don't know how much I've billed as an
11 expert witness in the last five years.

12 Q. Is it less than \$100,000?

13 A. No, I don't believe it's less than \$100,000
14 over the past five years.

15 Q. Is it less than a million dollars?

16 A. I don't know.

17 Q. Is it more than \$10 million?

18 A. I don't believe so.

19 Q. Would you say on an average year that you
20 make more as an expert witness than as a professor?

21 A. No, I wouldn't say that.

22 Q. Is it about the same?

23 A. No, I don't believe that.

24 Q. Prior to your represent -- sorry. Let me
25 back up.

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1 So your client is currently Blackhawk
2 Network, the patent owner in this case, correct?

3 A. Yes.

4 Q. And you were also retained by Blackhawk in
5 the other IPR, IPR 2023-01235; is that right?

6 A. I don't know the case number.

7 Q. But you have been retained by Blackhawk in
8 another IPR involving a different patent, correct?

9 A. Yes, that's correct.

10 Q. In both of those cases, you work with
11 BakerHostetler; is that right?

12 A. Yes, that's correct.

13 Q. And prior to these two InComm -- sorry,
14 Blackhawk cases, had you ever worked with
15 BakerHostetler before?

16 A. I don't recall whether I have or not, but I
17 do have the law firms with which I've worked on my
18 CV. So I could look that up and verify it.

19 Q. Approximately when were you retained by
20 Blackhawk?

21 A. I don't recall the exact date.

22 Q. Was it before or after the -- well, let me
23 give you a date.

24 So the other case -- let's call it the '135
25 patent case because it involves the '135 patent --

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1 that petition was filed July 21st, 2023.

2 Would you have been retained before or
3 after that date?

4 A. I would have been retained after that.

5 Q. Are you aware of the fact that the parties
6 in this case are also litigating a contractual
7 dispute in the court of Arizona?

8 A. No, I'm not aware of that.

9 Q. So you have no involvement with the Arizona
10 litigation?

11 A. No, I don't.

12 Q. Prior to this case, had you -- prior to you
13 being retained by Blackhawk, had you ever heard of
14 Blackhawk, the company?

15 A. No, I don't believe I had.

16 Q. What about the petitioner in this case --
17 let's get their full name, sorry -- Interactive
18 Communications International, Incorporated? Had
19 you ever heard of them before this case -- or,
20 rather, before you were retained by Blackhawk?

21 MR. HAILS: Objection. Form.

22 THE WITNESS: No, I don't believe that I
23 knew them prior to being retained.

24 BY MR. LU:

25 Q. Are you aware of the nature of Blackhawk's

1 business?

2 A. Can you clarify that question?

3 Q. Are you aware of the fact that Blackhawk
4 creates lottery systems?

5 A. Yes, I am aware of that.

6 Q. Are you aware of the fact that Blackhawk
7 also creates gift card systems?

8 A. Yes, I am aware of that.

9 Q. What is your understanding of Blackhawk's
10 gift card systems that it provides?

11 A. I don't understand that question.

12 Q. Well, do you know what sort of systems
13 Blackhawk provides in the gift card industry?

14 A. I still don't understand the question.

15 Q. Which part do you not understand?

16 A. I don't understand what you're asking me.

17 Q. Are you aware of the fact that Blackhawk
18 provides a distribution network for gift cards?

19 MR. HAILS: I'm going to object. This is
20 beyond the scope of the declaration.

21 THE WITNESS: I don't know that.

22 BY MR. LU:

23 Q. Do you know how distribution networks for
24 gift cards work?

25 A. I have familiarity with how gift cards

1 work.

2 Q. My question was about distribution
3 networks. Do you have any familiarity with those,
4 with respect to gift cards?

5 A. As I said, I have familiarity with how gift
6 cards work. In preparation for today, I didn't
7 specifically look into distribution networks
8 related to gift cards, though.

9 Q. What is your understanding of how gift
10 cards work?

11 A. A customer can have a transaction that
12 loads a value on to a gift card for a specific
13 company or organization, and then can come back and
14 utilize that gift card at that company in the
15 future.

16 Q. Are you familiar with the process of
17 loading value on to a gift card?

18 A. Yes. I've implemented a system that
19 utilized gift cards and loaded value on to them.

20 Q. And what was that system?

21 A. The company I founded, Imaginary
22 Technology, allowed transactions with credit cards,
23 debit cards, cash, and gift cards.

24 Q. And that was about 20 years ago; is that
25 correct?

1 A. Yeah. I don't recall the exact year, but
2 somewhere around there.

3 Q. So in implementing a system that loaded
4 value on to gift cards -- let me ask it this way.
5 What did your system do to load value on to gift
6 cards?

7 A. We created a point-of-sale system that
8 allowed customers to buy gift cards from a company.
9 So a customer would come in, say that they wanted a
10 gift card with \$20 on it. The point-of-sale system
11 would allow them to select that the purchase was
12 for a gift card. They would grab a card, a plastic
13 gift card, swipe it through a magnetic strip
14 reader. Then they would accept payment from the
15 customer for the amount that they wanted. And that
16 card, then, would be given to the customer and be
17 loaded with that amount.

18 Q. And in terms of what your system was doing,
19 how did it load the desired amount on to the gift
20 card?

21 A. Once the transaction was completed, we
22 stored the amount that was loaded on to the gift
23 card in a database, and it was attached to the
24 unique number that was associated with the gift
25 card.

1 Q. So this gift card was for the particular
2 retailer that the point-of-sale system was in?

3 A. Yes. This gift card could only be used at
4 that specific -- with that specific retailer.

5 Q. Was your point-of-sale system capable of
6 adding value to generic gift cards like a Visa gift
7 card?

8 MR. HAILS: Objection. Form.

9 THE WITNESS: No, we did not implement
10 adding value to Visa gift cards or others similar
11 to that.

12 BY MR. LU:

13 Q. So I know -- I heard you mention that your
14 point-of-sale system was for restaurants; is that
15 correct?

16 A. I don't know if I mentioned that. But,
17 yes, we were focused on the restaurant industry.

18 Q. Were you expecting your point-of-sale
19 system to be able to work with other industries?

20 A. We designed the system so that we could
21 eventually go into other industries. But during my
22 time at the company, we only were focused on
23 restaurants.

24 Q. And this point-of-sale system was intended
25 to be one that could be done without -- what's the

1 word -- the customer wouldn't need any help from
2 anybody to order something; is that correct?

3 MR. HAILS: Objection. Form.

4 THE WITNESS: We had a few different
5 products. We had a stand-alone point-of-sale
6 system, where waiters could enter an order into the
7 system after taking down the order on paper. We
8 also had a handheld point-of-sale system, where a
9 waiter would walk up to a table and enter the order
10 directly on a handheld device. And we also had the
11 unassisted point-of-sale system, where there was --
12 the system was on a table, for instance, and
13 customers would come in, sit at a table, and be
14 able to place their own orders.

15 BY MR. LU:

16 Q. And this was back in like 2004, right?

17 A. Yes. It was around that time frame.

18 Q. So this was like before iPads came out
19 that -- you know, nowadays, some restaurants, you
20 sit down and there is an iPad. You can order
21 something on the iPad. That was before all that,
22 right?

23 MR. HAILS: Objection. Form.

24 THE WITNESS: Yes. We started this company
25 before the days of iPod Touches and iPads.

1 BY MR. LU:

2 Q. Were you using your own custom-made
3 hardware or using hardware off the shelf?

4 MR. HAILS: Objection. Form.

5 THE WITNESS: We were not using custom-made
6 hardware. We did integrate multiple pieces of
7 hardware together, but we did not create our own
8 custom hardware.

9 BY MR. LU:

10 Q. In terms of the system that you could order
11 at the table, that a customer could order at the
12 table, what was the sort of hardware that you used?

13 A. It was a touchscreen that had a small
14 computer that was attached under the table. I
15 don't recall the exact hardware that we used right
16 now.

17 Q. It wasn't a -- sorry. Let me withdraw
18 that.

19 Was the computer created using
20 off-the-shelf parts?

21 MR. HAILS: Objection. Vague.

22 THE WITNESS: The computer was one that we
23 purchased.

24 BY MR. LU:

25 Q. I see. So it was probably like an x86

1 computer, running some operating system that was
2 available at the time?

3 A. Yes, that's correct.

4 Q. Did you ever intend for this point-of-sale
5 system to work at grocery stores or drug stores?

6 A. As I said, we designed the system with
7 flexibility to be able to expand into different
8 industries in the future, grocery stores or drug
9 stores being some of the industries that we had
10 discussed. However, during my time at the company,
11 we were only focused on restaurants.

12 Q. So nowadays, if you go to like any grocery
13 store, there are some self-checkout point-of-sale
14 systems where you take the product that you have
15 and you scan it. Are you familiar with that?

16 A. Yes.

17 Q. Is the scanning of items to eventually buy
18 them, is that something that your POS system was
19 capable of doing?

20 A. Yes. Our point-of-sale system was capable
21 of scanning bar codes.

22 Q. So in the restaurant context, what sort of
23 bar codes were being scanned?

24 A. One of the restaurants where our system was
25 installed -- so a restaurant that became one of our

1 clients -- was an Italian restaurant that had both
2 sit-down and to-go orders and in their to-go order
3 section was similar to a deli. And they would sell
4 chips, cookies, packaged products that they had
5 purchased. So we had a bar code scanner and
6 allowed customers to be able to purchase those
7 items through our point-of-sale system.

8 Q. So these were chips, cookies that were
9 prepackaged, and they weren't -- they weren't chips
10 and cookies made by the restaurant, right?

11 MR. HAILS: Objection. Form.

12 THE WITNESS: That's correct. The items
13 that were being sold there with bar codes on them
14 were from other companies. So the chips, for
15 example, were Frito Lay chips, just as an example,
16 that were being sold.

17 BY MR. LU:

18 Q. So a customer could just grab a bag of --
19 let me ask it this way.

20 For ordering these sort of items, was it an
21 unassisted system, or was there somebody at the
22 restaurant that needed to scan them?

23 MR. HAILS: Objection. Form.

24 THE WITNESS: For that part of the system
25 that was in the deli that included the bar code

1 scanner, that was an employee who would have been
2 scanning them.

3 BY MR. LU:

4 Q. So a customer would grab a bag of chips and
5 then give it to the employee to begin the checkout
6 process?

7 A. Let me walk you through how this could
8 progress. A customer comes into the restaurant and
9 wants to order a sandwich to go. And as they walk
10 in, they could grab a bag of chips and a soda, go
11 up to the cash register, tell the person working
12 there, "I'd like to order a turkey sandwich and
13 these chips and drink."

14 So the employee would enter into the
15 point-of-sale system the turkey sandwich, ask the
16 customer all of the different toppings that he or
17 she wants on that, then scan the bag of chips, scan
18 the soda, and then accept payment from the
19 customer.

20 Q. So when the bag of chips was scanned, what
21 was going on behind the scenes for your system?

22 A. Can you clarify that?

23 Q. Well, between the time -- all right. So
24 between the time that the bag of chips was scanned
25 and the payment was accepted from the customer, was

1 your system doing anything?

2 A. Yes.

3 Q. And what was it doing? I'm sorry. Go
4 ahead.

5 A. When an item's bar code was scanned, we
6 needed to get the price of that item. We had a
7 server that was located within the restaurant. The
8 point-of-sale system would communicate back with
9 that server, transmit the bar code so that it could
10 retrieve the price of the item, as well as a
11 description of the item, that was then returned
12 back to the point-of-sale system so that the
13 accurate price was then calculated in the total
14 price of that transaction.

15 In addition, with the back-end server, the
16 managers and the owner of the restaurant had the
17 ability to look at inventory. So they would know
18 how much inventory they had of each one of those
19 products -- the chips, the drinks, and so on -- as
20 well as all of their food, so they knew when they
21 needed to place another order for specific items.

22 Q. And so previously you mentioned that these
23 restaurants could offer gift cards; is that right?

24 A. Yes. We had gift card functionality
25 implemented in our point-of-sale system.

1 Q. So was that something the customer could
2 just grab off the shelf and hand it to the employee
3 to scan?

4 MR. HAILS: Objection. Asked and answered.

5 THE WITNESS: Yes. So a customer could
6 grab the physical card, the gift card. And when
7 they went to the register, they could add a
8 specific amount on to that gift card. Or, if they
9 were sitting at a table and they had dined in the
10 restaurant, they could ask the waiter, "We'd also
11 like to buy a gift card." And then the waiter
12 could grab a gift card, add that to their order,
13 and that would be included in the transaction from
14 their table, then.

15 BY MR. LU:

16 Q. How would the waiter add it to their order,
17 the gift card?

18 A. That would be done the same way that it
19 would be added if the customer grabbed the gift
20 card and went to the point-of-sale system that was
21 at the front of the restaurant. Where on the
22 point-of-sale system the waiter would select a gift
23 card, swipe the gift card, add the value that the
24 customer wanted on to the gift card, and then, once
25 the customer had paid for the entire transaction --

1 because that would just be one line or one item
2 that was in the overall transaction in the order --
3 then the gift card would be activated. That
4 information would be added into the back end
5 server. So then that gift card could then be used
6 in the future at that restaurant.

7 Q. So you previously said that a customer
8 could grab the physical card, the gift card, and
9 when they went to the register, they could add a
10 specific amount on to that gift card.

11 Would the customer be adding the amount, or
12 would it be an employee at the register adding the
13 amount?

14 MR. HAILS: Objection. Mischaracterizes
15 prior testimony.

16 THE WITNESS: The way we implemented the
17 system to buy a gift card at the restaurant would
18 require an employee of the restaurant to perform
19 that transaction.

20 BY MR. LU:

21 Q. Okay. So it would be the customer telling
22 the employee, "I want to add \$50 to this gift
23 card"; is that right?

24 A. Yes. We never implemented buying a gift
25 card through an unattended point-of-sale system.

1 Q. I see.

2 So you said you have a copy of your
3 declaration in front of you?

4 A. Yes, I do have a copy of my declaration in
5 front of me.

6 Q. And that's, again, Exhibit 2052, correct?

7 A. Yes, that's correct.

8 Q. And if you'll go to the last page of your
9 declaration. Let me know when you're there.

10 A. Okay, I'm there.

11 Q. Is that your signature on that page?

12 A. Yes. On the page with page number 98 on
13 the bottom of it, that is my signature.

14 Q. Page number 98, but on the bottom right it
15 says 2052.0099; is that correct?

16 A. Yes, that's correct.

17 Q. Do you have anything to add or revise to
18 your declaration?

19 A. No, I don't have anything to add or revise
20 to my declaration.

21 Q. Did you meet with anybody to prepare for
22 this deposition?

23 A. Yes.

24 Q. Who did you meet with?

25 A. I met with the attorneys.

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1 Q. Which attorneys?

2 A. I met with Mr. Hails. And for one of the
3 meetings, there was a second attorney as well. I
4 don't recall his name.

5 Q. Was he also with BakerHostetler?

6 A. Yes.

7 Q. And when did you meet with Mr. Hails and
8 the other attorney?

9 Let me just ask it this way. How many
10 times did you meet with these attorneys?

11 A. With the two of them, I met one time. And
12 I believe that I met with Mr. Hails one or two
13 additional times.

14 Q. And when did you meet with them?

15 A. Last week I believe was the first meeting I
16 had with them in preparation for this deposition.
17 I believe the second meeting was last week as well.
18 And then yesterday I had a short meeting.

19 Q. And approximately how long in hours did you
20 meet with them total?

21 A. Maybe somewhere between two to five hours
22 total.

23 Q. Between three meetings?

24 A. Yes.

25 Q. Did you look at any documents at these

1 three meetings?

2 A. Yes.

3 Q. Which documents?

4 A. I recall looking at my declaration, the
5 Exhibit 2052.

6 Q. Anything else?

7 A. I believe that we also looked at the '451
8 patent.

9 Q. Any other documents that you looked at?

10 A. There may have been, but I don't recall
11 specifically.

12 Q. Did you look at any of the prior art in
13 this case?

14 A. I have looked at prior art in this case. I
15 don't recall whether we looked at prior art in this
16 case during those meetings.

17 Q. So looking at Exhibit 2052 again, who wrote
18 the words in this declaration? Was it you or the
19 attorneys?

20 A. The declaration was a collaborative effort.
21 All of the opinions that are in the declaration are
22 mine.

23 My understanding of a declaration that goes
24 in an IPR proceedings has a specific format. The
25 attorneys helped with formatting, making sure that

1 everything was in the form that it needed to be.

2 There were a lot of conversations that went
3 on to determine the substance of what's in it. But
4 as I said, all of the opinions that are in the
5 declaration are mine.

6 Q. And in terms of who wrote the actual words
7 in this declaration, was it you or the attorneys?

8 A. Well, as I said, it was collaborative in
9 how this was written. So there are definitely
10 words that are in this declaration that are written
11 by me.

12 Q. Do you recall which portions were written
13 by you?

14 A. No. But as I said, all of the opinions in
15 the declaration are mine.

16 Q. Did the attorneys write the first draft of
17 this report -- or declaration, rather?

18 A. As I said, this was a collaborative effort
19 in drafting this declaration. There was a lot of
20 work that went into this, a lot of conversations.

21 Q. So do you recall who wrote the first draft?
22 Was it you or the attorneys?

23 MR. HAILS: Objection. Asked and answered.

24 THE WITNESS: As I said, this was a
25 collaborative effort in writing this. The format

1 of it is something that attorneys helped with in
2 making sure that it was in the right form, as
3 required by the IPR.

4 BY MR. LU:

5 Q. Okay. It's been about an hour. Why don't
6 we take a ten-minute break. Is that okay?

7

8 (Recess ensued from 11:01 a.m.
9 to 11:10 a.m.)

10

11 BY MR. LU:

12 Q. Welcome back, Dr. Miller.

13 During the break, did you speak with
14 anybody?

15 A. No.

16 Q. So I wanted to ask you about the checkout
17 process of the POS system you developed.

18 So for gift cards, am I right that it
19 begins by an employee pushing a button on the POS
20 system and then swiping the card?

21 A. Well, as I had said, if a customer was
22 going to be purchasing a gift card through the deli
23 area -- the restaurant we were working with had the
24 gift cards sitting there by the register. So a
25 customer could choose the gift card that had the

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1 design he or she wanted and then would physically
2 hand the gift card to an employee of the
3 restaurant.

4 And then as part of the overall order,
5 which could have been before or after scanning
6 other items, entering other items into the
7 point-of-sale system, or perhaps the gift card was
8 the only item that this customer was purchasing,
9 the employee would click on a button to indicate
10 that there was going to be a gift card purchase.

11 Q. Okay. And then after that button was
12 pressed, the employee would swipe the card. Is
13 that what you said?

14 A. Yes.

15 Q. And what's the purpose of swiping the card?

16 A. Swiping the card would give a unique number
17 from the magnetic strip of the gift card into the
18 point-of-sale system, so that could be stored in
19 the database of the restaurant, so that there was a
20 way to identify how much money was associated with
21 gift card.

22 Q. Okay. But before all that, what you're
23 doing is you're swiping the card in order to read
24 the identifier that's encoded in the magnetic
25 strip; is that correct?

1 A. Yes. That was why we needed the gift card
2 to be swiped.

3 Q. And then after the gift card is swiped, the
4 employee enters the desired value to add, correct?

5 A. Yes. That's the way we set up our system.

6 Q. And, now, this part I was a little unclear.
7 Does the system record this value with the
8 identifier in the database before or after the
9 customer is asked to pay for it?

10 A. If I recall correctly on this -- actually,
11 I don't recall. I don't recall whether it was
12 stored in the database and there was another field
13 to determine that it had been paid for and
14 therefore activated, or whether the point-of-sale
15 system held on to that until payment was received
16 and then stored in the database.

17 I don't recall which way we implemented
18 that.

19 Q. Okay. But either way would have worked,
20 right?

21 A. Either way would have worked. What we
22 needed to do was to verify that payment had been
23 received prior to the gift card being able to be
24 used at some point in the future.

25 Q. So at some point payment is confirmed, and

1 at some point in the database the identifier and
2 the amount of value that was added are recorded
3 together; is that right?

4 MR. HAILS: Objection to form.

5 THE WITNESS: Yes. At some point the
6 identifier from the gift card and the value of the
7 gift card that was added to it are stored in the
8 database.

9 BY MR. LU:

10 Q. And was this a database you guys set up?

11 A. Yes. This was a database that we created
12 that was associated with our point-of-sale system.

13 Q. And the back-end computer that this
14 database was hosted on, was that something you
15 provided to the restaurant, or was it the
16 restaurant's own hardware?

17 MR. HAILS: Objection. Form.

18 THE WITNESS: The server that the
19 back-office software was running on was a computer
20 that was owned by the restaurant that we provided
21 to them. So when they purchased our point-of-sale
22 system, it included the hardware to run the
23 point-of-sale system. So it -- it technically
24 belonged to the restaurant, but we provided it to
25 them.

1 BY MR. LU:

2 Q. I see. Yes, thank you for that
3 clarification.

4 Are you familiar with something called an
5 instant lottery game?

6 A. Yes.

7 Q. And an instant lottery game is something
8 where like the ticket could be like a scratch-off
9 ticket, correct?

10 A. Yes. A scratch-off ticket is a form of an
11 instant lottery game.

12 Q. And is it called instant lottery game
13 because, once you scratch it off and if you're a
14 winner, you can instantly redeem that prize?

15 A. That's -- that could be a reason it's
16 called an instant lottery game.

17 Q. You don't know one way or another, right?

18 A. Well, I don't -- I don't know back to the
19 beginning of when it became called an instant
20 lottery game, what the person who named it that was
21 thinking at the time.

22 But an instant lottery game is something
23 that, once you buy the ticket, you're able to
24 determine immediately or instantly whether you're a
25 winner or not.

1 Q. I mean, it makes sense to me. I personally
2 don't know either.

3 Now, a quick pick lottery game, that's not
4 an instant game, right?

5 A. That's correct. A quick pick lottery is
6 not an instant lottery.

7 Q. And a passive lottery game, that's also not
8 an instant game, right?

9 A. That's correct. A passive lottery game is
10 also not an instant lottery game.

11 Q. Sorry, I should have closed the loop on
12 this.

13 So going back to the POS system that you
14 developed and the purchase of a gift card. So
15 after the payment is confirmed and the values are
16 recorded in the database, the card is handed back
17 to the customer, and it's ready for use; is that
18 right?

19 A. Can you repeat that question?

20 Q. After a payment is confirmed and the values
21 are recorded in the database, the gift card is
22 handed back to the customer and ready for use; is
23 that right?

24 A. Yes, that's correct. After payment has
25 been confirmed, then the gift card is given back to

1 the customer and is ready for use.

2 Q. So the back-end office doesn't need to
3 reach out to any third-party services to activate
4 the gift card, correct?

5 A. The way that we implemented gift cards in
6 our point-of-sale system did not have a third-party
7 gift card provider.

8 MR. LU: Okay. Okay. I pass the witness.

9 MR. HAILS: Okay. I have no questions.

10 Thank you.

11 MR. LU: Okay. Short and sweet. Hope that
12 was okay with you.

13 (PROCEEDINGS ADJOURNED AT 11:20 a.m., 44.)

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NOTHING BUT THE TRUTH; THAT SAID DEPOSITION WAS
TAKEN DOWN BY ME IN SHORTHAND AT THE TIME AND PLACE
THEREIN NAMED AND THEREAFTER REDUCED TO TYPEWRITING
UNDER MY DIRECTION, AND THE SAME IS A TRUE,
CORRECT, AND COMPLETE TRANSCRIPT OF SAID
PROCEEDINGS; I FURTHER CERTIFY THAT THE ADVERSE
PARTY WAS REPRESENTED BY COUNSEL AT THE DEPOSITION.

I FURTHER CERTIFY THAT THE DEPOSITION OF
JEFFREY MILLER, PH.D., OCCURRED VIRTUALLY ON ZOOM,
TUESDAY, JANUARY 14, 2025, COMMENCING AT 10:00
A.M. TO 11:20 A.M.

I FURTHER CERTIFY THAT I AM NOT INTERESTED
IN THE EVENT OF THE ACTION. WITNESS MY HAND THIS
17TH DAY OF JANUARY, 2025.



DEBRA BOLLMAN FARFAN, CSR NO. 11648
RDR, RMR, CRR, CRC, CCRR

1 ROBERT HAILS, ESQ.

2 Rhails@bakerlaw.com

3 JANAURY 17, 2025

4 RE: Interactive Communications International v. Blackhawk
5 Network

6 1/14/2025, Dr. Jeffrey Miller, (#7106270).

7 The above-referenced transcript has been
8 completed by Veritext Legal Solutions and
9 review of the transcript is being handled as follows:

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1 _X_ Federal R&S Requested (FRCP 30(e)(1)(B)) - Locked .PDF
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5 The witness should then sign and date the errata and penalty
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8 the deposition or provided by the Federal Rules.
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10 requested before the completion of the deposition.

1 Interactive Communications International v. Blackhawk Network
2 Dr. Jeffrey Miller (#7106270)

3 E R R A T A S H E E T

4 PAGE_____ LINE_____ CHANGE_____

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24 (Dr. Jeffrey Miller) Date

25

[& - algorithms]

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

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