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

LIVEPERSON, INC.,

Petitioner,

vs.

24/7 CUSTOMER, INC.,

Patent Owner.

Case No. IPR2017-00610

Patent 9,077,804 B2

VIDEOTAPED DEPOSITION OF ARTHUR T. BRODY, Ph.D.
San Francisco, California
Wednesday, December 6, 2017

REPORTED BY:

CYNTHIA MANNING, CSR No. 7645, CLR, CCRR

JOB NO. 134515

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December 6, 2017
9:03 a.m.

Deposition of ARTHUR T. BRODY, Ph.D., held at Kirkland & Ellis LLP, 555 California Street, San Francisco, California, before Cynthia Manning, Certified Shorthand Reporter No. 7645, Certified LiveNote Reporter, California Certified Realtime Reporter.

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APPEARANCES:

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BY: BILL TRAC, ESQ.

Also present:
Marcus Majers, Videographer

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SAN FRANCISCO, CALIFORNIA;
WEDNESDAY, DECEMBER 6, 2017; 9:03 A.M.

THE VIDEOGRAPHER: Good morning.
This is the start of tape labeled Number 1 of the videotaped deposition of Dr. Arthur T. Brody in the matter of LivePerson, Inc. versus 24/7 Customer, Inc., in the United States Patent and Trademark Office, before the Patent Trial and Appeal Board. Case IPR2017-00610.

This deposition is being held at 555 California Street, San Francisco, California, on December 6th, 2017, at approximately 9:03 a.m.

My name is Marcus Majers, from TSG Reporting, Inc., and I am the legal video specialist.

Court reporter is Cynthia Manning, in association with TSG Reporting.

Will all counsel present please introduce themselves.

MR. RAY: This is Nigel Ray from the law firm Kirkland & Ellis. I'm representing the Petitioner, LivePerson, Inc. Along with me is co-counsel, Kevin Bendix.

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MR. TRAC: Bill Trac from the law firm of O'Melveny & Myers on behalf of Patent Owner, 24/7.
THE VIDEOGRAPHER: Will the court reporter please swear in the witness.

ARTHUR T. BRODY, Ph.D.,
having first been duly sworn, testified as follows:

EXAMINATION

BY MR. RAY:

Q. Good morning.

A. Good morning.

Q. Could you please state your name for the record?

A. Arthur T. Brody.

Q. All right. Have you had your deposition taken before?

A. Yes.

Q. And you've been deposed in the capacity as an expert witness before?

A. Yes, I have.

Q. And about how many times have you been deposed before?

A. Oh, probably around 25 or 30 times.

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1 Q. Have you ever been deposed in the capacity
2 not of being an expert?
3 A. Yes.
4 Q. And about how many times have you been
5 deposed in that capacity?
6 A. Oh, that would be once.
7 Q. Now, is there any reason that you can think
8 of that you wouldn't be able to provide accurate
9 testimony today?
10 A. No, there is not.
11 Q. Are you on any medication that might impact
12 your ability to provide truthful testimony?
13 A. No, I am not.
14 Q. And if I ask you a question that you don't
15 understand, will you please ask me to clarify it?
16 A. I certainly will.
17 Q. So referring back to the one time you were
18 deposed not in an expert capacity, could you
19 describe that time?
20 A. Yes. I was a fact witness.
21 Q. And what was that case about?
22 A. The case was about a company sued another
23 company about taking, I guess it would be, trade
24 secrets.
25 Q. And you were working for one of the

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1 Q. I'm sorry?
2 A. Such as paragraph 37.
3 Q. Okay. We'll reprint fresh copies. I
4 apologize.
5 MR. TRAC: Do you wish to take these back?
6 MR. RAY: That might be easier, yeah.
7 BY MR. RAY:
8 Q. We can probably proceed while we're getting
9 those printed.
10 I'd like to talk a little bit about your
11 educational background.
12 So in 1973 you graduated from City College
13 of New York with a bachelor's degree in physics; is
14 that right?
15 A. That is correct.
16 Q. And later you received a Ph.D. in physics
17 from Stony Brook University?
18 A. Yes.
19 Q. And that was in 1978?
20 A. Yes, it was.
21 Q. Did you go straight through from
22 undergraduate to your Ph.D. studies?
23 A. Yes, I did.
24 Q. So while you were at City College, you
25 applied for the Ph.D. program at Stony Brook?

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1 companies?
2 A. Yes, I was.
3 Q. Were you working for the company that was
4 being sued or the company that was suing the other
5 company?
6 A. At that point, I was working for neither.
7 Q. What facts did you know about that case?
8 A. I was a vice president of marketing and
9 sales at the time they were alleging trade secrets
10 were stolen.
11 Q. Okay. And what was that company?
12 A. That was TechniCom Systems, Inc.
13 Q. All right. Just to make things easy, I'm
14 going to mark an exhibit. This is an exhibit that's
15 already that's already been marked as 24/7 Customer
16 Exhibit 2010 in the IPR2017-000610.
17 (Exhibit 2010, previously marked for
18 identification, was referenced herein)
19 BY MR. RAY:
20 Q. And, Dr. Brody, do you recognize Exhibit
21 2017 -- oh, sorry, 2010. Sorry.
22 A. (Witness reviewing document.)
23 It is my declaration I submitted in this
24 IPR with some additional highlighting that I didn't
25 provide.

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1 A. Yes, I did.
2 Q. And as part of that, you filled out an
3 application for the Ph.D. program at Stony Brook?
4 A. Yes, I did.
5 Q. And your Ph.D., was that -- was there a
6 specialty that you focused on?
7 A. Yes.
8 Q. What was that specialty?
9 A. It was high energy partial physics. I was
10 an experimentalist.
11 Q. What does it mean to be an experimentalist?
12 A. So in physics you have theorists who
13 provide theory and experimentalists who try to prove
14 or disprove theories, and you do that through to run
15 experiments.
16 Q. Now, your high energy particle physics, is
17 there any real-world application to your research?
18 A. Oh, absolutely.
19 Q. What is some of the application of your
20 research?
21 A. Well, do you want the more technical side
22 of it or the more engineering side of it?
23 Q. Whichever one is at a higher level.
24 A. Well, the higher level would be, as you
25 poke back the curtains of what's going on in the

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1 universe, you learn different things. So directly
 2 out of partial physics, as an example, came what
 3 people are using now like quantum computing.
 4 Q. Does any of your research relate to call
 5 center technology?
 6 A. No. My research at that time did not
 7 relate to call center technology.
 8 Q. Do you have any patents?
 9 A. No, I do not.
 10 Q. Have you ever filed a patent application?
 11 A. No, but I've assisted others in doing that.
 12 Q. What was involved in assisting others in
 13 filing patent applications?
 14 A. Well, as an example, at Columbia University
 15 I was a consulting technical licensing officer, and
 16 I would review the research done by professors and
 17 graduate students and determine if there was
 18 commercial value, and then determine if a patent
 19 application should be pursued, and then monitor that
 20 along with the law firms involved. And it was
 21 typically in the areas of networking
 22 telecommunications, video technologies, and audio
 23 technologies.
 24 Q. And as part of your review and research,
 25 did you assist in the actual preparation of the

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1 speed of the protocols involved so that the people
 2 answering the phone calls could be more responsive
 3 to the customers.
 4 Q. What do you mean by "protocols" in this
 5 context?
 6 A. Well, when people typically think of a
 7 protocol, you would think of something like Internet
 8 Protocol or Transmission Control Protocol, TCP.
 9 Q. And so you were speeding up that type of
 10 the transmission protocols?
 11 A. Yes. At this time, it wasn't standardized;
 12 it was proprietary within the Bell system.
 13 Q. And what steps did you take to improve the
 14 protocols?
 15 A. First, we had to determine how much time an
 16 agent was basically sitting waiting for the system
 17 to respond, and there were measurements made in the
 18 call center. And then, in response to that, we sort
 19 of had a metric, here is the current system, present
 20 method of operation, and then I looked at various
 21 parts of the systems that had to talk to each other
 22 in order to give the agent an answer, and I focused
 23 on one particular area where I thought that the
 24 protocol could be more efficient.
 25 Q. And so when the agent is waiting for the

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1 patent applications?
 2 A. Only sometimes, not most of the time. But
 3 I would point out to the law firms the key
 4 commercial features which I assume would be
 5 protected in the claim language.
 6 Q. So if the law firms were having trouble
 7 filling out the patent applications, would they come
 8 to you to help them with that?
 9 A. It wouldn't so much be trouble as much as,
 10 you know, asking for a clarification. The law firms
 11 pretty much knew what to do to file an application.
 12 Q. Okay. Now, prior to this case, have you
 13 had any experience with customer-relationship
 14 management systems?
 15 A. Yes.
 16 Q. And when was the first time you had
 17 experience with customer-relationship management
 18 systems?
 19 A. 1981 to 1983.
 20 Q. And what were you doing in that time?
 21 A. I was working at Bell Laboratories and I
 22 was responsible for one of the systems used in one
 23 of the call centers within the Bell system.
 24 Q. What did your responsibilities include?
 25 A. The first job I had was to improve the

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1 system to respond, they were waiting for, like, the
 2 network traffic?
 3 A. Yeah, so I'll give you an example. Agents
 4 work, let's say, an eight-hour day. If they get --
 5 if they are answering trouble reports, and -- let's
 6 say they can do five in a day, but you can improve
 7 the responsiveness by a certain percentage, they may
 8 be actually able to answer a sixth trouble because
 9 you shrunk down the time that it takes to answer
 10 those original five troubles.
 11 Q. What did you do to make the protocols more
 12 efficient?
 13 A. Well, I actually looked at the message
 14 flows and determined if there was information that
 15 could be combined into single messages or if we
 16 could actually have the agent combine things on the
 17 agent's screen.
 18 You have to remember, these are the days of
 19 1200-baud modem, so transmission time became very
 20 important because you could only send a much more
 21 limited amount of information in a certain amount of
 22 time. So if you could speed that up, it was very
 23 important.
 24 Q. So you were improving the network
 25 transmission times, not how the agents themselves

1 responded to the questions?

2 A. Well, no, because in order to understand
3 whether you've made an improvement, you have to have
4 a present method of operation and you have to
5 measure how well that's doing, and I had chosen to
6 look at the response time of the system. So that
7 was measured in what the agent was doing with the
8 current system.

9 Then we made adjustments to the protocol
10 and we did simulations for how much time would be
11 saved, and, therefore, if it took an agent -- if an
12 agent was waiting out of the hour, let's say, 20
13 minutes and you could get them -- or 30 minutes, and
14 you could save 15 or 20 minutes of that, you know,
15 by the end of the day you've got an hour or two
16 hours of extra time where the agent can actually
17 take another trouble.

18 So the goal was to have the agent handle
19 more phone calls at the time by making the agent
20 more efficient.

21 Q. And did you take any steps to change how
22 the agent was using the system?

23 A. Yes. Because the system involved screens
24 and it was a test system and they had to step
25 through certain steps, there were certain things

1 that could probably be done together. So there was
2 a change to the screen so that we could actually
3 concatenate messages and put them together.

4 Q. And what type of system?

5 A. This is a system where an agent gets a
6 trouble and has to do some initial tests because
7 they want to verify the trouble. So the agent will
8 actually, say, okay, get the information as to what,
9 in that day, the circuit the customer owned, and
10 they would run some very quick tests on the circuit
11 to see if they could actually see the trouble that
12 the customer was seeing.

13 Q. Now, you described this as a "test system."
14 Was this actually deployed?

15 A. Yes. The call center was called the SSC,
16 the Special Service Center, and the test system that
17 was used by the agents was called the -- one of the
18 systems was called the SARTS, which is Switched
19 Access Remote Test System.

20 Q. And other than improving the protocol, did
21 you work on developing the system?

22 A. No, at that point I didn't work; I just did
23 the simulations and made the recommendations for
24 what the programmers then programmed.

25 Q. And this call center system, how was the --

1 did it involve, I guess, a customer and an agent?

2 A. Yes. So the customer would call in and
3 then some initial tests would be done to verify the
4 trouble, and that would be the first time the system
5 would be used.

6 Then if the trouble is verified, depending
7 on what was seen, it would be handed off to a more
8 advanced agent; but the customer would not
9 necessarily be online with the agent while they
10 actually ran through a longer series of tests to
11 determine when the problem might be solved. And the
12 customer would be called back and given a time when
13 the problem would be fixed by.

14 Q. And how is the customer communicating with
15 the agent?

16 A. At that point, it was by telephone.

17 Q. Was this at all an Internet-based system?

18 A. No, this was -- since -- this system was
19 designed in the late '70s. It's actually
20 pre-Internet, where like the TCP/IP protocols were
21 laid out in 1981, which is just about the time I was
22 doing this. So, as I said, these were proprietary
23 protocols.

24 Q. But it was computer-network based?

25 A. Yes, so there were -- the direct

1 connections between computers and the screens that
2 the agents worked on were probably terminals that
3 were hooked up to the VAX systems that were actually
4 running the -- in between the agent terminal and the
5 remote test heads.

6 Q. Okay. So we got into this when I asked the
7 first time you worked in call center technology.

8 Have there been other times?

9 A. Yes.

10 Q. And so after Bell Labs, what was the next
11 time?

12 A. Well, I became involved again when I was
13 working at TechniCom Systems. They had an agreement
14 with a company called Microsystems to sell what was
15 called ARSB system, which was the Automated Repair
16 Service Bureau system.

17 Q. And when you were at TechniCom, what did
18 your work involve?

19 A. Well, there I was -- started out as sort of
20 the product marketing manager and then I became vice
21 president of marketing and sales.

22 Q. And in your capacity as the product
23 marketing manager, did you work on call center
24 technology?

25 A. Well, this ARSB was exactly that, but

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