

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3
4 APPLE INC.,)

5 Petitioner,)

6 vs.)

7 ZENTIAN LIMITED,)

8 Patent Owner.)

Case No. IPR2023-00033

U.S. Patent No. 7,587,319

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11 VIDEOCONFERENCE DEPOSITION OF DAVID V. ANDERSON, PH.D.12
13 TAKEN ON BEHALF OF THE PETITIONER14
15 NOVEMBER 17, 202316
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22 Court Reporter:

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WITNESS:

PAGE

DAVID V. ANDERSON, PH.D.

EXAMINATION BY MS. BAILEY

5

(No exhibits were marked.)

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD
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4 APPLE INC.,)
5 Petitioner,)
6 vs.) Case No. IPR2023-00033
7 ZENTIAN LIMITED,) U.S. Patent No. 7,587,319
8 Patent Owner.)
9

10 VIDEOCONFERENCE DEPOSITION OF DAVID V.
11 ANDERSON, PH.D., produced, sworn, and examined on
12 November 17, 2023, all parties appearing remotely,
13 before Lauren N. Lawrence, RPR, CCR-MO, CCR-KS, in a
14 certain cause now pending in the United States Patent
15 and Trademark Office before the Patent Trial and
16 Appeal Board, between APPLE INC., Petitioner, vs.
17 ZENTIAN LIMITED, Patent Owner; on behalf of the
18 Petitioner.
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A P P E A R A N C E S

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1 IT IS HEREBY STIPULATED AND AGREED by and
2 between counsel for the Petitioner and counsel for the
3 Patent Owner that this deposition may be taken in
4 shorthand by Lauren N. Lawrence, RPR, CCR-MO, CCR-KS,
5 and afterwards transcribed into typewriting; and the
6 signature of the witness is expressly reserved.

7 * * * * *

8 (Deposition commenced at 9:37 a.m.)

9 DAVID V. ANDERSON, PH.D.,
10 having been first duly sworn and examined on behalf of
11 the Petitioner, testified as follows:

12 EXAMINATION

13 BY MS. BAILEY:

14 Q. Good morning, Dr. Anderson. Can you --

15 A. **Good morning.**

16 Q. -- confirm for me, please, that you have
17 electronic copies of the record for accessing today?

18 A. **Yes, I do.**

19 Q. Okay. And could you please confirm that
20 you don't have any notes, papers, or any other
21 information regarding these matters in front of you
22 other than the electronic copies of the record.

23 A. **I do have a list of some typos in front of**
24 **me that I wanted to go over.**

25 Q. Okay. Sure.

1 A. That's the only thing I have in front of me
2 that's not just the electronic copies.

3 Q. Sure. Do you want to go ahead and go over
4 those typos now?

5 A. Sure. In paragraph 140 -- I'm sorry.
6 Of -- in my 140 declaration, paragraph 4 --

7 (Reporter clarification.)

8 A. In my 140 declaration, paragraph 4, it says
9 "277." That should say "140."

10 In paragraph 12 of the same declaration, it
11 says "3 years." That should say "30 years."

12 In paragraph 45 -- it's not a big deal, but
13 there's an extra word. "Have," h-a-v-e.

14 And then in-- after paragraph 30, on
15 page 15, the numbering restarts. So when we've been
16 discussing this, we give both the page number and the
17 paragraph number because it restarts to 30 -- or I'm
18 sorry to 23, which means that there are two 23s up to
19 two 29s, and so we might need to be specific with
20 those.

21 And then in my 319 declaration,
22 paragraph 4, "277" should say "319."

23 Q. (By Ms. Bailey) Thank you, Dr. Anderson.

24 Was there any other further typographical
25 errors you wanted to correct?

1 **A. That's it.**

2 Q. Do you understand that today's deposition
3 is covering two IPRs, one IPR for the 319 patent and
4 one IPR for the 140 patent?

5 **A. Yes.**

6 Q. So I'm going to ask you a number of
7 questions today. And in an effort to avoid repetitive
8 questions that may be applicable to both IPRs, when I
9 ask a question, I'm going to try to make clear if it's
10 specific to the 140 patent that I'm asking a question
11 specific to the 140. And, similarly, if it's specific
12 to the 319, I'm asking a question specific for the 319
13 patent. If I don't specify, is it fair or are you
14 comfortable with me not specifying and that you are
15 understanding that your answer is applicable to both
16 patents?

17 **A. Yes.**

18 Q. And, of course, if you have a question or
19 you're unsure which patent we're talking about, please
20 ask me, and I am very happy to specify.

21 **A. Okay.**

22 Q. Are you aware --

23 MR. NOROOZI: Just for a minute, I mean,
24 I -- that raises a concern from my perspective,
25 because there are different combinations of references

1 at issue, and there are different opinions and -- and
2 so forth. So I think it raises, you know, a
3 significant risk of confusion if -- if we're talking
4 generically without specifying. But I will just say
5 if, in any instance, there's a lack of ambiguity -- I
6 mean, there's a lack of clarity, then, you know, I'll
7 leave it to the witness and the questioning attorney
8 to sort that out between you. I'll make my
9 objections.

10 MS. BAILEY: Understood. And, Counsel, if
11 you also are unclear which question or which patent I
12 am asking a question for, please let me know. Again,
13 I'm happy to clarify.

14 MR. NOROOZI: Okay.

15 Q. (By Ms. Bailey) Dr. Anderson, are you
16 aware of the legal concept in patent law regarding
17 enablement of a patent?

18 A. I'm not a lawyer, but I know that basically
19 enablement has to do with whether the patent teaches
20 how to implement or use a particular invention.

21 Q. Do you think that the enablement standard
22 requires a patent to lay out detail on how to make and
23 use the claimed invention that would otherwise be
24 known to the skilled artisan?

25 MR. NOROOZI: Objection. Form.

1 **A. So I didn't understand that enablement was**
2 **at issue here, and so I haven't spent time preparing,**
3 **you know, to understand what exactly enablement means**
4 **in legal terms.**

5 Q. (By Ms. Bailey) Are you aware that the
6 claim priority date for the 140 and 319 patents is
7 February 4, 2002?

8 And if it's helpful for you, if you want to
9 turn to your declaration for the 140 patent,
10 paragraph 14...

11 **A. Yes. I see in paragraph 15, it says "I**
12 **understand that the petition applies a priority date**
13 **of February 4, 2002, for the challenged claims, and I**
14 **apply the same date."** —

15 Q. So if I refer to the priority date of the
16 patents, can we agree that I'm referring to
17 February 4, 2002?

18 **A. Yes. Is that the same for the 319, though?**
19 **Oh, it is. I see it there. Yes. I'm good with that.**

20 Q. Could you please turn to your declaration
21 for the 140 patent and read paragraph 16 to yourself?

22 **A. Okay.**

23 Q. It is -- is it your understanding that this
24 paragraph is laying out the definition of a person of
25 skill in the art as set forth in the petition?

1 **A. Yes.**

2 Q. Is it your understanding that this same
3 level of skill is used and applied for the 319 patent?

4 **A. Yes.**

5 Q. And do you understand that this level of
6 skill for a person of skill in the art includes both a
7 minimum education and a minimum years of experience?

8 **A. Yes.**

9 Q. Okay. Do you dispute that this is a
10 correct level of skill for the 140 and the 319
11 patents?

12 **A. I do not.**

13 Q. Do you think you are a person of skill in
14 the art applying this definition?

15 **A. Yes.**

16 Q. What are your qualifications that make you
17 a person of skill in the art applying this definition?

18 **A. I have a master's degree in electrical and
19 computer engineering and -- which I received in 1994.**

20 **After that, I received a PhD in signal
21 processing focusing on speech and audio processing,
22 including speech recognition.**

23 **After the PhD, I became a professor at
24 Georgia Tech and have since done research and taught
25 classes in speech recognition and other areas of**

1 **signal processing.**

2 Q. Do you agree that this is a correct level
3 of skill for the 140 and 319 patents?

4 MR. NOROOZI: Objection. Form.

5 A. I adopted this definition of a person of
6 ordinary skill in the art based on the petition's
7 definition. I don't necessarily agree, but I'm --
8 it's a reasonable place to consider this from,
9 evaluate these patents from.

10 Q. (By Ms. Bailey) Why do you not necessarily
11 agree with the definition?

12 A. I haven't provided an alternative
13 definition. I didn't really think to. I saw that
14 this was a reasonable place to start, and since it was
15 proposed by the petitioner, I adopted it. If I were
16 given time to consider, I might alter it in some way.
17 I'm not sure yet.

18 Q. Dr. Anderson, quite a bit of your opinions
19 are based on what a skilled person would or would not
20 know. So are you stating today that you didn't really
21 think to consider the level of skill?

22 MR. NOROOZI: Objection. Form.

23 A. No. That's not what I'm saying.

24 Q. (By Ms. Bailey) Could you please clarify
25 then what you are saying?

1 A. I'm saying that the petitioner put forth a
2 person of ordinary skill in the art definition. It
3 was reasonable. Somebody with experience in speech
4 recognition. I believe somebody with those particular
5 backgrounds could implement the patents at issue, and
6 so those are the ones that I used. I took their
7 definition because that was where the arguments were
8 made from. Didn't propose a different one. That's
9 not my role. Instead, I evaluated the obviousness and
10 motivation to combine and other things from the
11 definition given by the petitioner. The main issue
12 that I have -- as you said, a lot comes down to a
13 person of ordinary skill in the art.

14 The main problem I have isn't that this
15 defined person of ordinary skill in the art could not
16 make use of the claimed inventions in the 319 and 140
17 patent. The main issue is that the petitioner put
18 forward some combinations where there are elements
19 missing and would need to be filled in. And this
20 person of ordinary skill in the art would not have the
21 requisite skills or understanding to do design in
22 another field as required by the petitioner's
23 combinations.

24 Q. Do you have an opinion on what the
25 appropriate level of skill should be for the 140 and

1 319 patents?

2 A. As I've said, I adopted the one given, and
3 I think it's reasonable. I'm not proposing anything
4 different.

5 Q. Do you think an engineer with a master's
6 degree in EE, CS, or CE would have been trained in
7 evaluating both the costs and benefits of a particular
8 design choice in developing a signal processing
9 architecture?

10 A. Let me break that question into two parts.
11 I do think that an electrical engineering student or
12 CS, more particularly, in electrical engineering in
13 computer engineering, would be very versed in
14 evaluating design tradeoffs, in general, in whatever
15 area of expertise is. They would all have the -- be
16 trained to evaluate design tradeoffs. But in signal
17 processing architecture, for example, it depends on
18 what their background is.

19 If, for example, you were in electrical
20 engineering and trained in fiber optics or analog
21 circuits, you would have a very different toolbox with
22 which to evaluate design tradeoffs. You would
23 understand the need to, but the specifics would depend
24 on the discipline.

25 Q. And do you agree that the definition for

1 the skilled person provided in the petitions for the
2 140 and 319 patents allows for two years of experience
3 after graduation?

4 **A. Yes.**

5 Q. Could there be a person that studied
6 high-performance computing and parallel processing in
7 their bachelor's degree, studying speech recognition
8 in their master's and then spent two years building a
9 system architecture specific to speech recognition,
10 does such a person potentially exist?

11 MR. NOROOZI: Objection. Form.

12 **A. You're describing something that I wouldn't**
13 **call a person of ordinary skill in the art, in general**
14 **or specifically with this. Someone who -- who studies**
15 **high-performance computer architecture in their**
16 **bachelor's degree would not have the knowledge and**
17 **experience to design new high-performance architecture**
18 **wholesale. That usually comes at the graduate level.**
19 **Furthermore, such a person would have focused on**
20 **classes in circuit design, computer architecture, not**
21 **in signal processing.**

22 **At Georgia Tech, we have three**
23 **undergraduate classes in signal processing for those**
24 **desiring to take that chain, plus classes in signal**
25 **processing applications that prepare somebody for**

1 graduate study in signal processing. If you were to
2 go straight into that, you would need to go back and
3 take the prerequisite courses to understand just the
4 signaling processing concepts.

5 Once that's done, they would then study
6 speech recognition. In a master's degree, by the time
7 they got the prerequisite chain out of the way, they
8 should have already graduated. So you're -- you're
9 giving some hypothetical superman that just doesn't
10 fit the reality of a ord- -- person of ordinary skill
11 in the art.

12 Q. (By Ms. Bailey) As of the priority date of
13 the 140 and 319 patents, were persons working on
14 speech recognition? —

15 A. In general, were there people working on
16 speech recognition as of those priority dates? Is
17 that what you're asking?

18 Q. Correct. That's my question.

19 A. Yes.

20 Q. Prior to February 2002, in the field of
21 speech recognition, were there methods available to
22 make speech recognition more efficient.

23 MR. NOROOZI: Objection. Form.

24 A. In general, yes.

25 Q. (By Ms. Bailey) Did these methods include

1 developments and hardware architecture for speech
2 recognition?

3 MR. NOROOZI: Objection. Form.

4 A. Most of the work -- I would say the vast
5 majority of the work in speech recognition was on
6 software systems and the mathematics behind them.
7 There are a few groups that focus also on hardware
8 accelerators. Most of those were cited either in the
9 specifications of the patents or in the prior art, and
10 those generally involved multi-disciplinary teams or
11 people who had specific training in hardware
12 architectures and speech recognition applications.

13 Q. (By Ms. Bailey) As of the priority date of
14 the 140 and 319 patents, was the use of parallel
15 processing techniques known to improve speech
16 recognition?

17 MR. NOROOZI: Objection. Form.

18 A. Based on the prior art that's been
19 presented, some -- actually, it wasn't known generally
20 to improve speech recognition. There were some cases
21 where parallel processing was known, but there are
22 also cases -- this is a very complex problem, for
23 example cited by Mathew, where parallel lies
24 [phonetic] in the search stage was shown to actually
25 decrease the overall performance due to the

1 **synchronization requirements and handling and**
2 **coordinating the data along the different modules.**

3 Q. (By Ms. Bailey) You just prefaced the
4 answer to my previous question as based on the prior
5 art that's been presented, but I am asking you, as a
6 person of skill in the art, per your earlier
7 testimony, whether you knew that adding parallel
8 processing increased the efficiency for speech
9 recognition?

10 MR. NOROOZI: Objection. Form.

11 A. So -- so I'm clear, you're saying as a
12 person of ordinary skill in the art, in 2002, in that
13 situation, would I have known that parallel processing
14 would increase the efficiency of speech recognition?
15 Is that -- is that your question?

16 Q. (By Ms. Bailey) Let me rephrase my
17 question so it's clear and so the record is clear.

18 As of 2002, are you aware of research being
19 performed to increase the efficiency of speech
20 recognition by implementing parallel processing
21 methods?

22 MR. NOROOZI: Objection. Form.

23 A. So in 2002, I don't recall what I knew at
24 that time, but as I'm sitting here now and looking
25 back at references, citations and other things about

1 the prior art in 2002, there are multiple teachings
2 about parallelization. Parallelization in speech
3 recognition is a huge topic. It's like saying "Is
4 medication known to help a disease?" What medication?
5 What disease?

6 In speech recognition, you have multiple
7 phases or multiple stages or multiple steps, and most
8 of the prior art that did -- attempted parallelization
9 with signal processing worked on parallelization, the
10 operation of those steps. For example, having feature
11 extraction running in parallel with distance
12 calculation or something like that. I don't recall
13 seeing anything about -- no. I guess there is
14 something.

15 There are a variety of parallelization
16 techniques. And as I quoted from Mathew, one of the
17 prior art references earlier, people were exploring
18 parallelization in many aspects of the speech
19 recognition problem. Mathew specifically looked at
20 parallelizing the search stage, which I assume is at
21 the bottom of your question, because that's what these
22 patents are associated with.

23 Mathew found that their implementation --
24 and they were experts in the area -- actually did not
25 lead to an improvement in performance. So there was

1 work in parallelization. Sometimes it paid off.

2 Sometimes it didn't. It very much depended on the
3 particular problem and the implementation.

4 Q. (By Ms. Bailey) As of the priority date of
5 the 140 and 319 patents, was there a desire for
6 improving speech recognition systems by making them
7 more flexible?

8 MR. NOROOZI: Objection. Form.

9 A. What do you mean by "more flexible"?

10 Q. (By Ms. Bailey) Please turn to the 140
11 patent, column 4, line 6. Feel free to read any
12 portions surrounding that section that you'd like to
13 read to yourself to familiarize yourself.

14 A. Oh, I was reading the wrong column. Sorry.

15 Q. It would probably be helpful to you just to
16 read the entire paragraph that begins on column 3,
17 line 62 and extends to column 4, line 18.

18 A. Thank you.

19 Okay.

20 Q. Do you see that this paragraph that you
21 just read in the 140 patent mentions "flexibility" at
22 least three times?

23 A. Yes.

24 Q. So as of the priority date of the 140 and
25 319 patents, was there a desire for improving speech

1 recognition systems by making them more flexible?

2 MR. NOROOZI: Objection. Form.

3 A. So your question is very general.

4 "Flexible" could mean so many different things. Many,
5 many different things. Flexible in terms of
6 understanding different languages. That would be
7 flexibility. Flexible in terms of being easily
8 tuneable to operate under different noise situations.
9 Flexible in that it was software only, so that it
10 could be implemented in a variety of different
11 platforms using only a C compiler.

12 This particular flexibility talks about
13 something that I haven't seen expressed as a goal in
14 any of the prior art systems. It really hasn't come
15 up because this one talks about the benefits of a
16 limited segmentation of the lexical data while
17 maintaining a flexibility in how the tasks are divided
18 up among that group. And since we didn't have
19 anything like that in the prior art, nobody has
20 expressed that that was a lack.

21 Q. (By Ms. Bailey) Do you think that it was
22 known as of the priority date of the 140 patent and
23 319 patent that by having a plurality of processors in
24 a group with a common memory there would be increased
25 flexibility in the processing?

1 MR. NOROOZI: Objection. Form.

2 A. So let's see. I'm trying to parse your
3 question here. If you have multiple processors in the
4 common memory, then there are more things to consider
5 how you would divide up the tasks, for example; how
6 you would schedule things; whether you're going to use
7 threading.

8 Generally, I remember what it was like to
9 develop multithreaded applications in -- at that time.
10 And multithreading libraries and techniques were still
11 under continual development. So there is -- there are
12 more design choices that could be made. And if that's
13 what you mean by "flexibility," then yes. That's not
14 the same flexibility as -- as is discussed in 4 -- in
15 column 4 of the 140 patent.

16 Q. (By Ms. Bailey) As of the priority date
17 for the 140 and 319 patents, was there a general
18 desire to make speech recognition systems scalable to
19 handle larger vocabularies?

20 MR. NOROOZI: Objection. Form.

21 A. At the time of the 140 patent, very large
22 vocabulary speech recognition was known. And at the
23 time, once you are at a very large vocabulary of
24 speech recognition, the focus is more on improving the
25 performance of the recognizer as a signal processing

1 task. There is one other aspect of this. And that
2 was at the time also some of the commercial speech
3 recognition approaches and others were focused on
4 domain-specific, large-vocabulary speech recognition.

5 That's something that Thelen did. Thelen
6 solved that problem by just running many different
7 speech recognizers each specific to that domain.

8 But even now, there's -- we don't have the
9 concept of extremely super large speech recognition
10 systems. So the concept of a large vocabulary speech
11 recognition system was known, and that was what the
12 140 patent was addressing.

13 Q. (By Ms. Bailey) Are you aware of a concept
14 of reduction of practice in patent law?

15 MR. NOROOZI: Objection to form.

16 A. I know there is such a concept. I couldn't
17 opine on what meets that.

18 Q. (By Ms. Bailey) Do you think it would have
19 been difficult for a skilled person to have made the
20 claimed invention of the 140 and 319 patents?

21 MR. NOROOZI: Objection. Form.

22 A. I haven't formed an opinion on that. I
23 think, generally, that a person of ordinary skill in
24 the art and speech recognition as described could make
25 use of the 140 patent. But since I don't know what

1 "reduction of practice" means specifically, I mean,
2 I'm not ready to give a formal opinion on it, but I
3 was satisfied that there is sufficient detail in the
4 140 and 319 patents that it could be made use of by
5 someone of ordinary skill in the art.

6 Q. (By Ms. Bailey) Would coordinating
7 multiple caches be something that would need to be
8 addressed when implementing the invention -- the
9 claimed inventions of the 140 and 319 patents?

10 A. So the 140 and 319 specifically talk about
11 how the memory structure is to work. It gives express
12 details on the different memories on the buses, on the
13 fact that you will have local memories at the
14 processors for control, and it says what information
15 is stored where.

16 In my declaration, I discuss the difficulty
17 of various things pertaining to designing a -- a
18 moving -- for example, Jiang's recognition system or
19 techniques to Chen's clustered parallel processing
20 system. And coordinating multiple caches is one of
21 the things that's mentioned. It turns out that the
22 140 has solved that. But without the benefit of the
23 140 patent, this is a question that would have to be
24 addressed by anyone who was to try to move Jiang's
25 system onto Chen's architecture.

1 Q. Can you point me to where in the 140 patent
2 that there's a discussion of solving the problem of
3 caches and storage that you just addressed?

4 A. Yes. This will take me a minute because I
5 don't have my marked-up copies.

6 Q. Understood. And feel free to word search
7 if that will make it faster for you.

8 A. So for starters -- and I'll feed you stuff
9 as I run into it, so there might be pauses in between.

10 The 140 patent and the specification for
11 the 319 is the same. So we'll just go through it -- a
12 description of the 140 patent.

13 The 140 patent specifies what program
14 data -- program and data-memory is, where the language
15 model memory is, where the processor is, where the
16 results memory are. It also specifies where the
17 feature verdict buffer is, and it specifies connection
18 for each of these to their respective processors that
19 are needed.

20 It expresses where the acoustic model
21 memory is. The acoustic model memory is specified to
22 hold the acoustic model, which would be a fixed thing.

23 Finally, it gives lexical tree processors
24 connected to acoustic model memory, the results
25 memory, language model processor, and the feature

1 verdict buffer, and so this is a different
2 architecture than Chen. Chen, instead, does not have
3 a universally connected results memory.

4 Chen -- and this is particularly relevant
5 for the 319 -- does not have a universally connected
6 feature verdict buffer. Chen, instead, envisions
7 having distributed control and data which is to be
8 shared with -- globally has to be hopped from unit to
9 unit.

10 In such a case, the data will be updating
11 in the local memories -- in the cluster memories
12 accessible to all processors because that's the only
13 memory he discloses having, and that's the memory that
14 Schmandt has pointed to as fulfilling all the
15 operations in the combination.

16 So by having this custom architecture in
17 the 140 patent, you don't have to worry about cache
18 consistency with the acoustic model memory because the
19 acoustic model is established at the beginning.

20 On the other hand, when you have the
21 cluster memory continually being updated as items are
22 being cascaded through and it's being used for
23 multiple purposes, then cache consistency becomes an
24 issue.

25 Okay. So now let's look at other things

1 relevant to your question.

2 Q. And, Dr. Anderson, before you move on, for
3 clarification, could you tell me where you were
4 looking at in the 140 patent in answering that
5 question? Was there something specific?

6 A. I started on Figure 2.

7 Q. Thank you.

8 A. So the memory structure that I've been
9 giving the overview of, based on Figure 2, the
10 description starts at the bottom of column 1. And
11 through column 4, it gives an overview of the
12 arrangement.

13 And then the specifics are really starting
14 more in column 5, where it talks about the various
15 memories and their uses. And even, for example, in
16 column 6, it specifies specific items that are to be
17 stored in the memory and how they are to be accessed
18 and by whom. And...

19 The on-board memory for the various
20 processors is described, for example -- it's
21 elsewhere, but it's mentioned in column 9, about
22 halfway down, around line 43.

23 By having local -- or having on-board
24 memory for the processor in addition to the shared
25 memory, you then avoid cache inconsistency problems

1 because things that you're operating on are now
2 isolated to specific processors with their local
3 caches.

4 Q. Thank you, Dr. Anderson. You just gave a
5 lot of information about what was in the 140
6 specification. Could you please turn to Claim 1 of
7 the 140 patent?

8 A. Okay.

9 Q. Can you identify one thing that you pointed
10 to in your prior answers that's recited in Claim 1 of
11 the 140 patent?

12 A. My understanding is that the claims claim
13 specific unique elements and the specification teaches
14 how one could implement those. So I would not expect
15 to see all of that in Claim 1.

16 Specifically, though, Claim 1 does describe
17 that the basic structure of clusters and processors
18 having an acoustic model memory and a method used
19 for -- for pruning effectively where it's calculating
20 an initial score, which is evaluated to determine the
21 final scores.

22 Q. So you agree that Claim 1 does not recite
23 all of the implementation details that you discussed
24 in your answer; is that correct?

25 A. The implementation details are discussed in

1 the specification. The claim does not -- is not ever
2 expected to have all the implementation details.

3 MS. BAILEY: Dr. Anderson, how about we go
4 off the record and take a short break?

5 THE WITNESS: Okay.

6 (Recess.)

7 MS. BAILEY: Dr. Anderson, I have no
8 further questions.

9 THE WITNESS: Thank you.

10 MR. NOROOZI: Just give me one minute. We
11 can stay here, but just give me one minute to see if
12 there's anything that I want to discuss with the
13 witness.

14 No questions from me.

15 MS. BAILEY: We can go off the record?

16 THE REPORTER: Same orders as last time?

17 MR. NOROOZI: Yes, please.

18 MS. BAILEY: Yes.

19 THE REPORTER: Read and sign?

20 MR. NOROOZI: Read and sign.

21 (Deposition concluded at 10:49 a.m.)
22
23
24
25

CERTIFICATE OF REPORTER

I, Lauren N. Lawrence, Registered Professional Reporter, Missouri Certified Court Reporter #1368, Kansas Certified Court Reporter #1690, do hereby certify that the witness whose testimony appears in the foregoing proceedings was duly sworn by me; that the testimony of said witness was taken by me to the best of my ability and thereafter reduced to typewriting under my direction; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this proceeding was taken, and further, that I am not a relative or employee of any attorney or counsel employed by the parties thereto, nor financially or otherwise interested in the outcome of the action.



Lauren N. Lawrence
RPR, CCR-MO #1368, CCR-KS #1690

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November 22, 2023

Mr. Kayvan B. Noroozi
NOROOZI PC
11601 Wilshire Boulevard, Suite 2170
Los Angeles, California 90025
310.975.7074

In Re: APPLE INC. vs. ZENTIAN LIMITED

Dear Mr. Noroozi:

Please find enclosed your copy of the deposition of
DAVID V. ANDERSON, PH.D. taken on November 17, 2023,
in the above-referenced case. Also enclosed is the
original signature page and errata sheet.

Please have the witness read your copy of the
transcript, indicate any changes and/or corrections
desired on the errata sheet, and sign the signature
page before a notary public.

Please return the errata sheet and notarized signature
page to the Production Department at Lexitas Legal
Services, 1608 Locust Street, Kansas City, Missouri
64108 for filing prior to trial date.

Thank you for your attention to this matter.

Sincerely,

Lauren N. Lawrence, RPR, MO CCR, KS CCR
Missouri Notary Public
Enclosures
cc: Ms. Bailey

1 STATE OF)
2)
3 COUNTY OF)

4 I, DAVID V. ANDERSON, PH.D., do hereby certify:
5 That I have read the foregoing deposition;
6 That I have made such changes in form and/or
7 substance to the within deposition as might be
8 necessary to render the same true and correct;
9 That having made such changes thereon, I hereby
10 subscribe my name to the deposition.
11 I declare under penalty of perjury that the
12 foregoing is true and correct.

13
14
15 DAVID V. ANDERSON, PH.D.

16 Executed this day of ,
17 2023, at .

18 Notary Public:

19 My Commission Expires:

20
21
22
23
24
25
26 Signature page to: Dr. Anderson

WITNESS ERRATA SHEET

1
2 Witness Name: DAVID V. ANDERSON, PH.D.
3 Case Name: APPLE INC. vs. ZENTIAN LIMITED
4 Date Taken: NOVEMBER 17, 2023
5
6 Page #_____ Line #_____
7 Should Read: _____
8 Reason for Change: _____
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10 Page #_____ Line #_____
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24 Reason for Change: _____
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26 Witness Signature: _____

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