

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

MICROSOFT CORPORATION)
)
Petitioner,)
)
vs.) IPR2025
) US Patent No. 8,073,911
STERLING COMPUTER)
CORPORATION,)
)
Patent Owner.)

VIDEOCONFERENCE
DEPOSITION

The following is the deposition of LATIFUR
KHAN, taken before Julie A. Brooks, Notary Public,
Registered Professional Reporter, pursuant to Notice of
Taking Deposition, via Zoom, commencing at 10:30
Central Time, Tuesday, March 3, 2026.

1 APPEARANCES:

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EXHIBITS REFERENCED: 1001, 1005, 2005, 2010

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PROCEEDINGS

Whereupon, the deposition of LATIFUR KHAN
was commenced at 10:30 Central Time as follows:

* * *

MR. RODRIGUEZ: Good morning. My name
is Michael Rodriguez. I'm the notary assigned by
Lexitas for Texas.

And the witness has identified
themselves to me as Latifur Khan -- I hope I pronounce
that correctly --

MR. KHAN: You did.

MR. RODRIGUEZ: -- by driver's license
issued by the Motor Vehicle Department of the State of
Texas and is currently located in Richardson, Texas.

Witness, would you please raise your
right-hand and repeat after me.

LATIFUR KHAN,
after having first been sworn to tell the truth,
testifies as follows:

EXAMINATION

BY MR. BORDER:

Q. Okay. Good morning, Dr. Khan.

1 A. Good morning.

2 Q. Do you have any copies in front of you?
3 Just as sort of an administrative note, I can drop an
4 electronic copy of your Declaration into the chat, but
5 it is probably easier --

6 (Reporter reminder.)

7 BY MR. BORDER:

8 Q. For the purposes of the court
9 reporter --

10 I will -- I am trying to drop it into
11 the chat. Okay. Well, if you could open up your
12 Declaration. Let's start there. So do you have
13 Exhibit 2005 in front of you?

14 MR. PADMANABHAN: I have a Declaration
15 that you can use.

16 MR. BORDER: Let's go off the record.
17 (Discussion off the record.)

18 BY MR. BORDER:

19 Q. Okay. Back on the record. Dr. Khan, I
20 think what you have in front of you is Exhibit 2005; is
21 that right?

22 A. Yes.

23 Q. And this is your Declaration in
24 IPR2025-00270?

25 A. That's correct.

1 Q. And if you turn to the final page, is
2 that your signature on page 77?

3 A. That's correct.

4 Q. Okay. Well, let's talk about this
5 Declaration then, please. Can you turn to paragraph
6 24, please?

7 A. Yeah.

8 Q. Looking at paragraph 24, you agree that
9 a message container and its submessages can be
10 implemented using a hierarchical model, correct?

11 A. I said, using a various, and just listed
12 a dual approach, a hierarchical model and a relational
13 model.

14 Q. Okay. So I guess, just to ask my
15 question again, at least one model that can be
16 implemented -- or at least a message container and its
17 submessages can be implemented in one of two models; is
18 that right?

19 A. Correct.

20 Q. And one of those models is the
21 hierarchical model?

22 A. Yes. And the relational model, as
23 well.

24 Q. And what you call a hierarchical model
25 has been around for years; is that right?

1 A. Yes. It is even longer than the
2 relational model.

3 Q. So just to put some context in that, how
4 long has a hierarchical model been around?

5 A. The model was proposed in 1970 by
6 Dr. Codd, and before that a hierarchical model was
7 there. So I think it was before 1970.

8 Q. Before 1970. Okay. So it is fair to
9 say that the hierarchical data model had been around
10 for 30 or 40 years before the filing of this patent?

11 A. Correct.

12 Q. Correct. And then by this patent, I
13 mean the '911 Patent at issue here today; is that
14 right?

15 A. Uh-huh.

16 Q. So there's nothing new about how a
17 hierarchical data model worked, at least at the time of
18 the '911 Patent?

19 A. Correct.

20 Q. And the inventors on the '911 Patent
21 they would have been aware of a hierarchical model; is
22 that right?

23 A. I think so.

24 Q. And same question, the inventors would
25 have been aware of a relational model; is that right?

1 A. Correct.

2 Q. So is it also your opinion that a
3 POSITA -- let's back up, sir.

4 Are you familiar with what a POSITA is?

5 A. Yeah, I know.

6 Q. And so would you agree that a POSITA at
7 the time of the invention, the '911 Patent, would have
8 been aware of a hierarchical model?

9 A. Yes.

10 Q. Okay. Let's go to paragraph 25, please,
11 which is the next paragraph.

12 A. Uh-huh.

13 Q. In the third sentence, you state that,
14 Data is structured in a tree-like format.

15 Do you see that?

16 A. Uh-huh.

17 Q. And you are referring to hierarchical
18 data models for that; is that correct?

19 A. Uh-huh.

20 (Reporter reminder.)

21 MR. BORDER: The court reporter is
22 recording everything we say, so yes and no is easier
23 than uh-huh.

24 THE WITNESS: Yeah.

25 Can you repeat the question?

1 BY MR. BORDER:

2 Q. Okay. All right. So in paragraph 25,
3 you are describing hierarchical data models; is that
4 right?

5 A. Right, yes.

6 Q. And in the second sentence, you say, In
7 this model, data is structured in a tree-like format;
8 is that correct?

9 A. Correct.

10 Q. And when you say tree-like format,
11 that's a logical structure; is that right?

12 A. It can be logical. It can be
13 physical.

14 Q. Well, I guess -- sorry. Here is what I
15 mean by that. When I say logical structure, what I
16 mean is a platform independent way of organizing data.
17 Would you agree with that?

18 A. What is platform here?

19 Q. Well, by platform, I mean computer
20 systems, those kinds of things, software programs.
21 When I am talking about a logical structure, I am just
22 suggesting it is an abstract platform independent way
23 of organizing data; is that right?

24 A. Yeah. Let's say it is an operating
25 system. Independent, then it might be a problem

1 because how we implement is an issue here. But the
2 pointer needs to be implemented using some program
3 language like C++ or something. So then the OS would
4 have a significant impact.

5 Q. It would have a significant --

6 A. In that sense.

7 Q. Go ahead. Sorry.

8 A. Yeah, in that sense, it may not be --
9 that logical level of independence you cannot get to in
10 the hierarchical.

11 Q. Would a logical model describe how data
12 is organized conceptually independent of any database
13 software or source code?

14 A. Say it one more time.

15 Q. Sure. Would you agree that a logical
16 model describes how data is organized conceptually
17 independent of any database, software, or code?

18 A. That is correct.

19 Q. Okay. Would you agree that a logical
20 data model does not say anything about how something is
21 physically stored on a disk? Would you agree with
22 that?

23 A. Uh-huh, yeah. It can be, yes.

24 Q. What do you mean by it can be?

25 MR. PADMANABHAN: Did you say "can't be"

1 or "can be"?

2 MR. BORDER: I understood him to say
3 "can be".

4 MR. PADMANABHAN: I'm sorry. I
5 misheard.

6 Go ahead.

7 THE WITNESS: It can be. But what is
8 the question?

9 BY MR. BORDER:

10 Q. I'm talking, at the level of a logical
11 structure, it doesn't get into the details of how
12 something is physically stored on a disk?

13 A. Right.

14 Q. Okay. Let's go to paragraph 26, please.
15 Paragraph 26 is where you begin describing the
16 relational data model. I think you said earlier that
17 this was introduced in the 1970s.

18 A. Uh-huh.

19 Q. At least at the time of the invention of
20 the '911 Patent, this was not a new model?

21 A. No, it is not a new model.

22 Q. Okay.

23 A. It was widely used in the database
24 technology when the patent '911 was submitted, yeah.

25 Q. The inventors of the '911 Patent would

1 have been aware of relational data models?

2 A. Correct.

3 Q. And a POSITA at the time of the '911
4 Patent would have been aware of relational models; is
5 that right?

6 A. That's correct.

7 Q. Okay. Relational data models, they were
8 well known in the art at the time of the '911 Patent?

9 A. Yes.

10 Q. Now relational data models use something
11 commonly known as foreign keys to link records; is that
12 right?

13 A. Right.

14 Q. And I believe you refer to these foreign
15 keys as relational references; is that right?

16 A. So I mention there is a bunch of things.
17 They call it foreign key, primary key. And this is the
18 foreign key, primary key linking process that's very
19 common in databases that they use.

20 And then I try to say that this ID in
21 the relational database -- relational, basically, in
22 the relational model, we have a bunch of tables or
23 relations. In those relations, we have a set of
24 records or a tuple. And those tuples is distant. Then
25 each tuple is identifiable by a set of attributes, and

1 that attribute needs to be minimal from the candidate.
2 Yeah, from the candidate. You can choose the file that
3 you need.

4 Then when you have multiple tables like
5 this, you need to link those tuples, as you say, or
6 relations. They are the same or similar to each other
7 in the relational model. The linking process between
8 these two tables will be done through the foreign key
9 and primary key. And that is known as the relational
10 model. So both things, I say is a relational
11 reference. That way we connect the two tables or link
12 the two tables.

13 Q. So just to continue in paragraph 26,
14 your final sentence there -- this is on the top of page
15 17. It says, These references, commonly known as
16 foreign keys, link records by pointing to the primary
17 key --

18 A. Hold on. Hold on. Where is this?

19 Q. Sorry. At the end of paragraph 26, and
20 this is at the top of page 17. Let me know when you
21 are there.

22 A. Okay.

23 Q. In that final sentence of paragraph 26,
24 you state, These references, commonly known as foreign
25 keys, link records by pointing to the primary key of a

1 related record in another table.

2 Do you see that?

3 A. Uh-huh.

4 Q. Was that a yes, sir?

5 A. Yes, uh-huh.

6 Q. And so when you say these references,
7 are you referring to relational references?

8 A. Give me one minute. Yes. According to
9 the writing, yes.

10 Q. Okay. And so at least one of your
11 constructions of relational references would be a
12 foreign key? Or Let me strike that.

13 One example of a relational reference is
14 a foreign key; is that right?

15 MR. PADMANABHAN: Objection. Misstates
16 the witness's testimony.

17 THE WITNESS: The linking process, I
18 call it, the relational reference, between these two
19 tables, and that -- in the relational model, that can
20 be implemented using foreign key, primary key. Foreign
21 key will come from the one relation, and primary key
22 would come from another relation. We are trying to
23 link or establish connection between the two tables.
24 Our records would be from one table to another table.
25 That will be done through the -- this foreign key,

1 primary key, that I call relational reference.

2 So let's say the first table is called
3 R1, and R1 has a bunch of attributes. And one of that
4 is -- I call it its primary key. Social Security
5 number, for example --

6 Let's go through the paragraph 26 block,
7 Figure 5.7. They are Employee, and has Social Security
8 number, primary key there. And Employee table has a
9 bunch of attributes, a number of attributes, like first
10 name, middle name, last name, Social Security number,
11 birth date. And where the Social Security number is
12 primary key. This table and this relation has a number
13 of records.

14 And then we have another table that
15 is -- it's a --

16 Q. Sir, let's stick to paragraph 26. We
17 can certainly talk about other tables soon. But what
18 in Figure 5.7 is a relational reference?

19 A. So that's what I'm explaining, 5.7, the
20 Employee table has Social Security number for each of
21 the primary on the table.

22 Then if you see the Works On relational
23 table, they have an ESSN, employee Social Security
24 number, which is a foreign key there. And project
25 number -- and this ESNN is foreign key on the table.

1 The Employee table and the Works On
2 table, these are the links to the -- to the relational
3 references that -- I call it to the primary key and
4 foreign key. Primary key will come from the Employee
5 table, and foreign key will come from the Works On
6 table with the ESNN.

7 This way we have a number of -- some
8 records in the Employee table and some records in the
9 Works On table. And how I can link these two records
10 coming from two different tables is through this
11 relational references, which are primary key and
12 foreign key.

13 Q. Okay. Sir, but what in that table is
14 the relational reference or references?

15 A. The -- here the relational reference,
16 you can think of connecting two tables in this case.
17 One is the Employee table, and the other is the Works
18 On table. These two tables, I have some records from
19 Employee and some records appear in the Works On table.
20 Now I have to link the Employee records with the Works
21 On table, Works On records.

22 How we can do the linking is through the
23 Employee's Social Security number. Whoever the
24 employee works in the employee table, their Social
25 Security number needs to appear in the Works On table.

1 Then I can say this employee works on a particular
2 project. That's where the linkage process is. That's
3 what we call relational relationship.

4 Again, say a particular employee works
5 on a particular project. Let's say an employee's
6 Social Security number is 1234 and he works on Project
7 Number 1. So I have to start this between the two
8 tables. From the employee table, he has his name,
9 Social Security number, blah, blah.

10 Then I want to know which of the
11 projects he works on, and that can be found on the
12 Works On table, the Works On relation under project
13 number information.

14 And now this the employee needs to be
15 linked with this Works On records particular to the
16 employee. It needs to be connected to the Works On
17 table or record. That will be done through the ESSN,
18 which is -- the ESSN will serve as a foreign key in the
19 Works On table. The SSN will be the primary key in the
20 Employee table. Both are the same in terms of the
21 content. They will have the same SSN. Then these two
22 records come, one from Employee, one from Works On. It
23 can be linked. That's what I'm trying to explain.

24 Q. Let's go to paragraph 34. Let me know
25 when you are there.

1 A. Yeah.

2 Q. All right. It is your opinion that a
3 relational model does not use pointers, but instead
4 links through relational reference; is that right?

5 A. Pointer is traditional programming
6 language. Programming language is point. That is
7 correct.

8 Q. You point to Exhibit 2004 and state that
9 the term "pointer" is not discussed anywhere in that
10 text; is that right?

11 A. Which text?

12 Q. Well, I'm just looking at paragraph 34.
13 You say, for example, Exhibit 2004/2011 (chapter on the
14 relational model containing no discussion of pointers).

15 So I'm just confirming for you, neither
16 2004 nor 2011 have a discussion of the term "pointer"
17 in the context of relational database; is that right?

18 A. Okay. Now I have to recall. What is
19 the Exhibit 2004; do you remember?

20 Q. I mean, we can bring them up. But I'm
21 just referring to what you say.

22 A. Is it -- okay. Give me one second.

23 Q. Why don't you read your -- you know,
24 read paragraph 34 and refresh your recollection.

25 A. I read it. I am trying to recall what

1 is 2004. Is it a book? Is 2004 a book chapter? If it
2 is a book chapter, that's correct.

3 Q. I believe, sir, these are book chapters
4 on the relational model; is that right?

5 A. It is hard to say that. I remember we
6 submitted some book chapters from this book. Yes,
7 that's correct.

8 Q. And we can take a look at these later if
9 you'd like. Similar to --

10 A. That's correct.

11 Q. So the concepts described in these
12 chapters, these are things that would be known to the
13 inventors at the time of the '911 Patent?

14 A. Correct.

15 Q. The concepts that are described in these
16 patents related to relational models, those would have
17 been known to a POSITA at the time of the '911
18 invention; is that right?

19 A. Can you say it one more time, please?

20 Q. I'm saying, all these concepts described
21 in these chapters at the time of the '911 Patent, those
22 would have been known to POSITAS in reference to a
23 relational model; is that right?

24 A. Correct, correct.

25 Q. So, you know, looking at your last

1 sentence in paragraph 34, it's your opinion that the
2 inventors of the '911 Patent and a POSITA at the time
3 of the '911 Patent would know that relational databases
4 link tables through relational references such as
5 primary keys, foreign keys, shared IDs, and join
6 attributes; is that right?

7 A. Correct.

8 Q. Let's go to paragraph 35.

9 A. Uh-huh.

10 Q. Sir, you state here that, A pointer
11 stores the memory address of a variable or object
12 within a running program's memory.

13 Do you see that? It is the second
14 sentence.

15 A. Uh-huh.

16 Q. Okay.

17 A. Correct, I saw it, uh-huh.

18 Q. So you don't dispute that a pointer can
19 point to some messages stored externally to a message
20 container; is that right?

21 A. This sentence, I meant -- okay. There
22 is a -- in the computer system, we have a central
23 processing unit. We have a RAM. RAM means random
24 access memory, which is memory. Then we have a disk, a
25 hard disk.

1 The RAM at the time was very expensive,
2 and people cannot afford too much RAM. So -- the data
3 might be big. It may not fit well in the main memory
4 or RAM. So they are usually stored on a storage-like
5 disk. And to load the data from the disk to the main
6 memory is an operation.

7 Now when we talk about traditional
8 pointers in a programming language like C/C++ from
9 here, data will be fed -- data -- if I want to work on
10 certain data, that will be fed into the main memory of
11 RAM. And then we can use pointers and use an
12 operation. So that is the type of thing I want to
13 emphasize again.

14 Q. Okay. So why don't we do this. Why
15 don't we look at the '911 Patent. Do you have that in
16 front of you?

17 Or, Devan, if you have it, can you hand
18 it to him?

19 A. Sure. Thank you.

20 Q. I'll drop this into the chat just so we
21 have it.

22 MR. PADMANABHAN: I don't have a copy of
23 it. I thought I did.

24 THE WITNESS: Let me see. I have it
25 with writing on it.

1 MR. BORDER: We can also use the digital
2 version. I can share.

3 THE WITNESS: Yeah, because I marked
4 some of the stuff.

5 MR. BORDER: Let's use my clean version.
6 I just need to figure out how to share my screen here.
7 Give me a second.

8 MR. PADMANABHAN: He can just pull it
9 up.

10 MR. BORDER: Oh, okay. Maybe that's the
11 easier way to do it. Thanks, Devan.

12 MR. PADMANABHAN: Yeah.

13 BY MR. BORDER:

14 Q. I loaded it into the chat, Dr. Khan,
15 Exhibit 1001.

16 A. Yeah.

17 Q. Why don't you call that up?

18 A. I downloaded it.

19 Q. Great. Why don't you open it up to the
20 first page. See in the bottom right corner, it says,
21 Exhibit 1001?

22 A. Yes.

23 Q. Okay. The top right corner, it says US
24 Patent 8,073,911, do you have that?

25 A. '73,911 B2, yeah.

1 Q. Okay. So you recognize this patent as
2 the patent that we're discussing today?

3 A. That's correct.

4 Q. Okay. Well, let's go to Column 4, Lines
5 61 to 64.

6 That states there that a message --

7 A. Last one, line 61.

8 Q. Yeah. Sorry. 61 to 64.

9 A. Right.

10 Q. It states that, A message can be thought
11 of as a container with relational references. The
12 container itself does not contain content, but rather
13 points to submessages and/or attachments in which
14 content resides.

15 Do you see that?

16 A. Uh-huh.

17 Q. Now, in the portion of the '911 Patent
18 that we just -- that I just read, it also states that,
19 in an embodiment, the container itself does not contain
20 content, but rather points to submessages; is that
21 right?

22 A. That's correct, yeah.

23 Q. Okay. So you agree that, in this
24 embodiment, the '911 Patent is referencing pointing to
25 submessages; is that correct?

1 A. Say it one more time, please.

2 Q. Sure. I'm just suggesting that, in this
3 portion of the patent, it states, in this embodiment,
4 the '911 Patent is referencing or is describing
5 pointing to submessages; is that right?

6 A. Pointing to submessages; that is
7 correct. Yeah.

8 Q. Okay. And you would agree that
9 relational references point to a plurality of
10 submessages stored externally to a message container;
11 is that right?

12 A. Say the last part one more time.

13 Q. Yeah. I'm just trying to understand
14 what it is referring to, this portion of the patent.

15 I'm asking you whether you would agree
16 that relational references point to a plurality of
17 submessages stored externally to a message container?
18 Would you agree with that?

19 A. The message container doesn't contain
20 the messages. It just is a bunch of attributes it may
21 have and involves, and then it may reference to another
22 table, where those tables will be connected to this
23 table and so on.

24 Q. Okay. So then we at least agree that
25 the submessages are not stored in the message

1 container; is that right?

2 A. Yes.

3 Q. Instead, relational references are used
4 to point to those submessages stored externally from
5 the message container?

6 A. Correct.

7 Q. Okay. Now, in this description of this
8 embodiment, it doesn't say anything about links to
9 submessages, does it?

10 A. It was a broad point. It is using
11 relational reference. Relational reference -- you can
12 see a message -- in the Line 61, A message can be
13 thought of as a container with relational references.
14 The container itself does not contain content, but
15 rather points to submessages and/or attachments in
16 which content resides.

17 Q. Okay. In that --

18 A. And then --

19 Q. As I read it, it doesn't say anything
20 about links to submessages, does it?

21 A. Yeah. But as I told you previously, the
22 relational reference means linking tables, right.

23 Q. I understand, sir, what --

24 A. Correct.

25 Q. I understand, sir, what you understand

1 relational reference to mean.

2 I'm saying, in the description of the
3 patent we just read, the words "links to submessages"
4 do not appear anywhere in that description?

5 A. Correct. But the closest word is
6 "points," yeah, points to submessages.

7 Q. Understood. In this embodiment, it
8 doesn't describe foreign keys, does it?

9 A. Correct, it does not.

10 Q. It says nothing about primary keys, does
11 it?

12 A. That's correct. For this part, yes, for
13 this block.

14 Q. In this embodiment, it doesn't say
15 anything about shared ID's or joint attributes, does
16 it?

17 A. It doesn't.

18 Q. And so it's -- but it's your opinion
19 that a relational model does not use pointers; is that
20 right?

21 A. Correct. In programming --

22 Q. Go ahead.

23 A. A pointer -- in traditional programming
24 language, pointer is not used here.

25 Q. Okay. And you agree that, in this

1 description of Figure 2, beginning at lines 59, on
2 Column 4, it doesn't say that this is a preferred
3 embodiment, does it?

4 A. Can you explain that question? I don't
5 get the question.

6 Q. Yes, sir. I'm just saying, it just
7 says -- if you read that first sentence, it says,
8 Figure 2 is a block diagram illustrating a
9 representation of a message 200 exchanged according to
10 an embodiment of the messaging system.

11 Do you see that?

12 A. Right, yes.

13 Q. Do you agree it says an embodiment and
14 not preferred embodiment, correct?

15 A. Yes, that is embodiment. Yes, that is a
16 way to do it, right.

17 Q. Okay. Okay. Let's go to Column 5. It
18 is the next column in the '911 Patent.

19 A. Can I add something? You mentioned that
20 this paragraph doesn't talk about the primary key or
21 the ID or the foreign key. But in this patent '911,
22 somewhere it mentioned ID and how they cleared the ID.

23 And then this patent relies on the
24 application of Patent 461, I think. That patent, it
25 talks about relational model in detail. And they have

1 a bunch of tables. They show how they connect those
2 tables through the foreign key, primary key type of
3 concepts shown in the table.

4 Q. Yes, sir. Dr. Khan, Mr. Padmanabhan
5 will definitely be able to ask you questions about
6 that. We may get into that too.

7 For now, if you don't mind, let's go to
8 Column 5.

9 A. Hold on. 5, okay. Yeah. Yes, I see
10 Column 5.

11 Q. One second. I'm just trying to find my
12 way here. Okay. So Column 5, up at the top left,
13 starting on Line 5, it says, In one embodiment, the
14 message container is extensible and can point to other
15 types of data, such as patient codes, embedded
16 graphics, and questionnaires.

17 Do you see that?

18 A. Yes, I saw it.

19 Q. Okay. And similar to my earlier
20 questions, this just says in one embodiment, right?

21 A. Uh-huh.

22 Q. Is that yes?

23 A. Yes.

24 Q. Okay. It doesn't say preferred
25 embodiment?

1 A. Okay.

2 Q. Okay. And it doesn't say anything about
3 relational models in that description, does it?

4 A. Yeah. This sentence doesn't have the
5 relational thing, yeah.

6 Q. Again, nothing about links or primary
7 keys and foreign keys?

8 A. You are right, this paragraph or this
9 sentence, yes.

10 Q. Okay. All right. Let's turn back to
11 your -- if you can just -- let's sort of put that
12 digital document to the side. Let's go back to your --
13 your Declaration.

14 I want to go to paragraph 48. I think
15 we just briefly got into this, so I think we may have
16 an opportunity to discuss some of what you just
17 discussed.

18 Let me know when you get to paragraph 48
19 of your Declaration.

20 A. Yes. 48 with the '461 Application,
21 right.

22 Q. Okay. Now, it is your opinion that the
23 '911 Patent incorporates by reference the '461
24 Application; is that right?

25 A. That's correct, yes.

1 Q. Let's see. Well, let's -- why don't we
2 do this. Why don't we --

3 Devan, do you happen to have a copy of
4 Exhibit 2010 If not, I can drop it into the chat.

5 MR. PADMANABHAN: I do not have 2010.
6 BY MR. BORDER:

7 Q. Dr. Khan, I just loaded into the chat
8 Exhibit 2010 and once you are able to access that,
9 let's just look at the front page.

10 A. Yes, I loaded it, downloaded it.

11 Q. Great. On the first page, in the bottom
12 right corner, it says, Exhibit 2010. Do you see
13 that?

14 A. Yeah, Exhibit 2010.

15 Q. Over on the left there, Item Number 21,
16 it's got the application number, but it ends in '461.
17 Do you see that?

18 A. It ends with 71081, right, the
19 application number?

20 Q. So I'm looking over on the left side.
21 It is Item Number 21, application number. It says,
22 10/789,461. Do you see that?

23 A. Yeah. Number '461, yes.

24 Q. You are okay if we refer to this as the
25 '461 Application?

1 A. That's correct, yeah.

2 Q. Okay. Great. Then it is your position
3 that the '461 Application describes a relational model;
4 is that right?

5 A. Yes.

6 Q. But you would agree the '461 Application
7 never explicitly defines what a relational model is?

8 A. Please, repeat the question.

9 Q. Well, my point is that it never -- that
10 the '461 Application does not define, expressly define,
11 what a relational model is, does it?

12 A. The definition of the relational model,
13 is that what you mean?

14 Q. Yeah.

15 A. Yeah. There is no definition of the
16 relational model. But they use the relational
17 reference. They use relational model. They use keys,
18 and they use integrated concepts as part of the
19 relational model they mention, yes.

20 Q. You said earlier a relational model
21 doesn't use pointers; is that correct?

22 A. It doesn't use the traditional pointers,
23 key pointers, yeah.

24 Q. Let's go to paragraph 41, please.

25 A. Yeah.

1 Q. Paragraph 41 states, an S-mail includes
2 a pointer open (i.e., a reference) to the locations of
3 the current submessage 16, along with pointers to any
4 history submessages.

5 Do you see that?

6 A. Right. I saw that, yeah, yeah.

7 Q. Okay. Then do you see that there --
8 this application uses the phrase "i.e." Do you see
9 that?

10 A. Uh-huh. That's correct, yeah.

11 Q. And you understand that that use of i.e.
12 signals an intent to define the word to which it
13 refers? Do you agree with that?

14 MR. PADMANABHAN: Object to Rule 611.

15 You can answer.

16 THE WITNESS: Yes, I saw it.

17 BY MR. BORDER:

18 Q. I'm sorry. Can you repeat your
19 answer?

20 A. I saw the i.e. reference. Yeah, I saw
21 that.

22 Q. Okay. And I'm just asking you whether
23 you agree that it signals an intent to define the word
24 to which it refers?

25 MR. PADMANABHAN: Objection. Rule 611

1 and 613.

2 You can answer.

3 THE WITNESS: Can you state -- can you
4 explain -- ask the question a little bit differently or
5 elaborate so that I will understand what you are trying
6 to say?

7 BY MR. BORDER:

8 Q. Sure. Well, I'm just saying it says, A
9 pointer (i.e., a reference).

10 A. Right.

11 Q. You agree it is defining a pointer as a
12 reference; is that right?

13 MR. PADMANABHAN: Objection. Rule 611
14 and Rule 613.

15 THE WITNESS: That's correct, yeah,
16 reference.

17 BY MR. BORDER:

18 Q. Okay. So you agree that the '461
19 Application here is defining a pointer as a
20 reference?

21 MR. PADMANABHAN: Objection. Rule
22 611.

23 THE WITNESS: In our writing, in our
24 articulation, I address the issue.

25 And, yes, if you see this patent '461, a

1 pointer was mentioned in a few places and mostly
2 pointer, actually.

3 And on the other hand, in '911 Patent,
4 pointer was not mentioned at all. And there a point
5 was mentioned.

6 And furthermore, if you see here,
7 besides pointer in '461, relational reference,
8 relational model, i.e., then these are the keywords
9 that frequently are appearing, which may outnumber this
10 keyword pointer.

11 So you can't conclude by looking at this
12 the pointer keywords are the references in two or three
13 places and one you use as the pointer. Because a
14 relational keyword, relational reference, relational
15 model, these outnumber the occurrence count in this
16 patent, Patent '461, which the account will outnumber
17 this occurrence of the pointer, yeah.

18 BY MR. BORDER:

19 Q. Let's go to your Declaration again.
20 Maybe we can talk about some of your points there.
21 Let's go to paragraph 52.

22 A. Yeah.

23 Q. Now, according to paragraph 52, it's
24 your opinion that the use of pointer in the '461
25 Application is a logical reference rather than one used

1 in traditional programming language; is that right?

2 A. Yeah. Yes, that's correct.

3 Q. Okay. What do you mean by traditional
4 programming languages?

5 A. You know that the -- when you -- at the
6 time when you write a program, for a computer, you need
7 to give instruction. And the instruction will be given
8 to the -- some sort of program for -- using some
9 programming language.

10 And one of the widely used programming
11 languages is called C/C++, and at the time, C/C++
12 heavily used pointers. And that's the programming
13 language point we talk about. Basically, pointer is
14 used to reference to a variable that holds the memory
15 address, the memory address of variables. That's what
16 I meant by pointers.

17 Q. Okay. So long as a pointer is logical,
18 then would you agree that a reference, a relational
19 reference, may be a pointer?

20 A. I disagree with it because it is -- the
21 way you are saying it is broad. Because here the main
22 point is we can come up with some sort of reference --
23 "reference" is a broader term than the pointer. So
24 some sort of ID can be the difference and, eventually,
25 can be used to connect two records into one.

1 But if you want to stop this link
2 between two tables that the relational -- when the
3 relational model is mentioned, it means that we will
4 use the relational -- the foreign key, primary key.
5 Those types of process will be there when you use the
6 relational model keyword.

7 And relational model means -- it clearly
8 states that you will have a bunch of tuples, a number
9 of tuples, and those tuples will be connected to or
10 linking to the relational references of foreign key,
11 primary key that I mentioned.

12 Q. Let me make it so it's -- I guess, I'll
13 word this so it is a little broader. Again, I'm
14 looking at paragraph 52. You say, the '461 Application
15 uses pointers to refer to a logical reference as used
16 in the relational model.

17 So my question is: So long as a pointer
18 is logical, then would you agree that a reference as
19 used in the relational model may be a pointer?

20 MR. PADMANABHAN: Rule 611.

21 THE WITNESS: If pointer is a logical
22 reference, we cannot say that it will be -- it will
23 fulfill that relational model requirements. We cannot
24 say that. That's my position.

25 BY MR. BORDER:

1 Q. I'm sorry. Can you repeat that, please?

2 A. If the pointer is -- let's say, if
3 pointer is some sort of logical reference, then we
4 cannot say that this will -- this will represent or
5 this can be used -- this was a -- this was, basically,
6 a substitute relational model; that we cannot say.

7 Q. I'm having trouble marrying that answer
8 with my question.

9 So, again, I'm focusing on what you
10 state here. The '461 Application uses pointers to
11 refer to a logical reference as used in the relational
12 model.

13 So my question is: So long as the
14 pointer is logical, then would you agree that a
15 reference as used in the relational model may be a
16 pointer?

17 MR. PADMANABHAN: Objection. Rule 611
18 and 403.

19 THE WITNESS: Okay. So in a relational
20 model, they don't -- when it is a logical reference,
21 they don't call it a pointer at all. So that's a
22 difference in terms of the terminology. They call it
23 the ID or shared key, primary key, foreign key, those
24 types of things. So that's why.

25 But if you argue that, if the pointer is

1 some sort of logical reference, then -- then -- then in
2 that relational model, it will be known as a, let's
3 say, foreign key, or it will be known as an ID or
4 something in that case. That way, it will be -- it
5 will not be known as a pointer. That's what I am
6 saying.

7 BY MR. BORDER:

8 Q. I guess, I'll ask the question more
9 simply. A pointer can refer to a logical reference as
10 used in the relational model, correct?

11 A. Pointer can be used --

12 MR. PADMANABHAN: Objection. Rule 611
13 and 403.

14 THE WITNESS: Can you say one more time,
15 please?

16 BY MR. BORDER:

17 Q. Sure. I'm just looking at paragraph 52.
18 I'm, basically, reading what you wrote. I'm saying, a
19 pointer can refer to a logical reference as used in the
20 relational model; is that right?

21 A. That's correct, yeah.

22 Q. Okay. Let's go to paragraph 120,
23 please.

24 A. 1-2-0. Yes.

25 Q. So the Board defined relational

1 references as pointers that point to related messages
2 exchanged among users. Do you see that?

3 A. Yes, I saw it.

4 Q. And nothing in the Board's construction
5 limits the phrase "pointer" to a traditional
6 programming language, does it?

7 A. It doesn't.

8 Q. Below that, you state that the '911
9 Patent assigns a unique ID, which serves as a primary
10 key for a relation; is that right?

11 A. Correct, yeah.

12 Q. Okay. So it's your view that a pointer
13 can be a unique ID?

14 MR. PADMANABHAN: Objection. Rule 611.
15 You can answer.

16 THE WITNESS: Give me one or two minutes
17 to read this first.

18 In my writing, if you see 120, I never
19 say the pointer will be a unique ID. I'm trying to say
20 that the tuple of the submessage will have a unique ID,
21 and also I provide support from '911 when it talks
22 about how the unique ID will be cleared. It is not a
23 traditional pointer the way pointers are created. It
24 is different from that. This ID is a logical ID, and
25 you would define it. The '911 Patent came up with this

1 ID. And then using that ID, they will establish a link
2 with the -- containing with the messages, with the
3 submessages.

4 Q. It is not a pointer using traditional
5 programming language, but it could be a pointer using a
6 logical structure?

7 A. Hold on.

8 MR. PADMANABHAN: Someone walked in.
9 Give me one second.

10 MR. BORDER: Actually, why don't we go
11 off the record. It is 12:30. It's probably a good
12 time for a break.

13 MR. PADMANABHAN: Sure.

14 (Recess.)

15 BY MR. BORDER:

16 Q. Okay. We'll go back on. Dr. Khan, I
17 think when we left off we were talking about paragraph
18 120 in your report.

19 And I just -- let's go back to this
20 discussion. So it's your view that a pointer -- a
21 traditional programming language pointer is not used in
22 a relational model; is that right?

23 A. Yeah, that's correct.

24 Q. But a logical pointer could be used in a
25 relational model?

1 MR. PADMANABHAN: Scott, on the last
2 question, part of the sentence broke off. Could you
3 repeat that one more time?

4 BY MR. BORDER:

5 Q. Sure. A logical pointer can be used in
6 a relational model; is that correct?

7 A. Okay. Thanks for asking this question.
8 But there is no definition. I haven't come across -- I
9 haven't come across a logical pointer at all. I think
10 they call it pointer. Pointer usually refers to the
11 physical location in terms of the memory. But there is
12 no logical pointer, and so that's why I cannot say that
13 logical pointer would be used in the relational model
14 or relational references.

15 Q. Well, let's turn back to paragraph 52.
16 Maybe I misunderstood what you wrote there. If you
17 could turn to paragraph 52 in your Declaration. Again,
18 you state here, in the last sentence, The '461
19 Application uses pointers to refer to a logical
20 reference as used in the relational model.

21 Do you see that?

22 A. Uh-huh, correct, I saw it.

23 Q. Now, do you understand what I mean when
24 I say a logical pointer?

25 A. Okay.

1 Q. Okay. Let's go back to paragraph 120.

2 A. 120?

3 Q. Yes. Would you agree that a relational
4 reference can be a unique ID?

5 A. The -- when you said the relational
6 references, basically, the definition is a little bit
7 broad. We should focus on -- we have a bunch of -- we
8 have a number of relations. And one relation to other
9 relations, we have to establish the links. And that
10 will be the relational reference. That is the way I
11 interpret it.

12 And in order to connect this one
13 relation to another relation or connect tuples or
14 records that appear in one relation and connect it to
15 the tuples in the other relations, the ID will be a
16 mechanism to establish the link.

17 A unique ID is very useful because
18 eventually in databases, with relational models, we
19 have a number of records. And each record will be
20 unique, and no duplication is allowed by definition in
21 the relational model. So that unique ID will be very
22 useful to connect the tuple from one relation to the
23 tuple in the next relation.

24 Q. Okay. Well, that's a long explanation
25 to a question I didn't ask.

1 Sir, in this last sentence, you state,
2 The patent using a relational model where containers
3 are connected to their submessages through relational
4 references, such as IDs. Recall that in the '911
5 Patent, each tuple or submessage is assigned a unique
6 ID, which serves as the primary key for that relation.

7 So, again, is it your opinion that a
8 relational reference, as used in the '911 Patent, can
9 be a unique ID?

10 A. So unique ID, using a unique ID, yes,
11 you can establish the link or relational reference, but
12 not but necessarily -- unique ID is one way to do it.

13 Q. Okay. And Unique ID is one example of a
14 relational reference; is that right?

15 A. Correct.

16 Q. There are other examples?

17 A. Might be, yeah.

18 Q. Okay. So consistent with our earlier
19 discussion, a logical pointer can also be a unique
20 ID?

21 MR. PADMANABHAN: Object. Rule 611.

22 MR. BORDER: Sorry, Devan. Just so I
23 know, what part of 611 are you referring to?

24 MR. PADMANABHAN: So for me, it is two
25 parts. I think this is asked and answered. But, also,

1 I think this misstates his testimony. But I'll let
2 him -- I'll let him answer, and then -- that's what I
3 thought I heard.

4 BY MR. BORDER:

5 Q. Okay.

6 A. Okay. Can you say your question one
7 more time?

8 Q. Would you agree that a logical pointer
9 can be a unique ID?

10 MR. PADMANABHAN: Same objection.

11 THE WITNESS: I want to say logical
12 pointer -- in 52, I reference logical reference, so
13 there is a difference between when you define pointer
14 and when you define a reference. There is some
15 difference that exists.

16 So that's why, in my Declaration we say,
17 in '461, it uses pointer and means logical reference.
18 I am not going to say it's a logical pointer. So that
19 way I can say that logical pointer cannot be the ID.

20 BY MR. BORDER:

21 Q. I'm sorry. What do you mean by that?

22 A. So I saw the difference. There is a
23 difference between pointer and reference. Reference is
24 broader. The pointer points -- usually when people
25 talk about pointer, we think about the programming

1 language from the memory location and so on.

2 But reference is an alias. It can cover
3 the pointer, or it can go to some sort of logical
4 reference. It can be called to the ID. Or some sort
5 of key can be used also as a reference. So that's why
6 reference is broader. That's why I emphasize that in
7 my Declaration, in 52, pointers with logical reference,
8 not logical pointer. There is nothing called logical
9 pointer.

10 Q. I think I understand that.

11 Earlier, we were discussing the '461
12 Application, right?

13 A. Uh-huh.

14 Q. And there is a paragraph there that is
15 discussing a pointer. It says, i.e., a reference. Do
16 you remember that?

17 A. Yes, sir.

18 Q. So in what sense is the '461 patent
19 using the term "pointer"?

20 MR. PADMANABHAN: Objection to Rule
21 611.

22 THE WITNESS: So it is -- I think you
23 try to -- so one part of the paragraph, my
24 interpretation is it is used to refer to logical
25 reference. The pointer is used there for logical

1 reference purpose.

2 There is not a physical point, a
3 physical location to point to. That's not the case.
4 The way I think some people think when they talk about
5 the pointers, it goes to the physical address or memory
6 location. That's not the case that they meant, the
7 pointers.

8 In '461 they mention pointers two times
9 or three times. Pointer means there is not the
10 physical address or not a memory location. It will be
11 more the logical reference that I meant.

12 On the other hand, if you see '461, they
13 mention many times relational model, relational
14 reference, but ID's, relations -- so that clearly shows
15 that their focus is on the relational model.

16 Q. Let me ask this. A logical reference
17 can be a unique ID in the context of the '911 Patent?

18 A. It may be, yes.

19 Q. Okay. Let's open up Exhibit 1005. I
20 don't know if you have a hard copy. If not, I will
21 drop it into the chat?

22 MR. PADMANABHAN: 1005?

23 MR. BORDER: Rohall.

24 MR. PADMANABHAN: Yeah, I don't have
25 that.

1 THE WITNESS: Can you drop it?
2 MR. BORDER: Yes.
3 BY MR. BORDER:
4 Q. All right.
5 A. Hold on. One moment, please. Yeah, I
6 opened it.
7 Q. Okay. Let's go to paragraph 57.
8 A. Exhibit 105, right?
9 Q. Yeah. Let me ask you that first. In
10 the bottom right-hand corner, do you see Exhibit
11 1005?
12 A. Correct, yeah.
13 Q. This is a patent, or this is a patent --
14 a published patent application to Rohall; is that
15 correct?
16 A. Correct, yeah.
17 Q. Okay. Let's go to paragraph 57. I'll
18 just say you might -- well, let me ask my question.
19 A. Correct, please. Sorry.
20 Q. Now, you agree that Rohall discloses
21 pointers; is that correct?
22 A. Yes.
23 Q. Okay. Would you agree that the pointers
24 in Rohall are not to memory addresses?
25 A. Can you say it one more time?

1 Q. Sure. Would you agree that the pointers
2 in Rohall are not to memory addresses, correct?

3 A. Are not memory addresses. Is that what
4 you are saying?

5 Q. Okay. The pointers in Rohall are
6 logical references. Agree?

7 A. No, I don't agree with that part.

8 Q. Why not?

9 A. Because somewhere they mention they use
10 XML document format to store the -- so they have a band
11 relationship, right. So in order to keep the band
12 relationship, they maintain the some data structure.
13 This is a structure that they use. This can be -- if
14 they implement this -- now the question is how they
15 implement it. If they implement it in a memory, then
16 they will, obviously, utilize this bench relationship
17 will be implemented to the traditional pointer.

18 On the other hand, if they store the
19 data, the is data on the disk, then they also maintain
20 some sort of addresses and keep those addresses in the
21 disk.

22 And they mention something in 64. They
23 use XML type of format to store the data. If you see
24 64, they use Lotus Notes, and Lotus Notes is a document
25 management system, my understanding, and they maintain

1 the hierarchical model, parent-child relationship
2 there.

3 And then they, say, instead of keeping
4 many, many trees, we keep only one tree and keep it in
5 the database using XML format. Then I assume that the
6 tree may be so big that they want to store it in the
7 disk. But every time they would load it into the main
8 memory, then they will have a pointer at the main
9 level.

10 Q. Let's -- let's continue our examination
11 of paragraph 57. Right around the middle of the
12 document, of that paragraph, it says, Original document
13 ID 402 may comprise a pointer to the original document.
14 Do you see that?

15 A. Pointer, yeah.

16 Q. Then reading down to the bottom of the
17 page, it says, Child document IDs 408, a through n, may
18 comprise a list of pointers.

19 Do you see that, as well?

20 A. Where is it? Where is it?

21 Q. It is right at the bottom of the page,
22 still in paragraph 57. It says, Child Document IDs
23 408, a through n, may comprise a list of pointers --

24 A. Correct, yeah.

25 Q. -- to the document.

1 Do you see that?

2 A. Correct.

3 Q. So it's describing Original Document 402
4 may comprise -- or ID 402 may comprise a pointer and
5 Child Document 408 may also comprise pointers. Do you
6 agree with that?

7 A. Uh-huh, correct.

8 Q. Continuing in paragraph 57, it says, In
9 the illustrative embodiment, the value of IDs 402
10 through 408 may be the Notes ID value for a document.

11 Do you see that?

12 A. Yeah, I saw it may be Notes ID.

13 Q. Okay. A Notes ID value for a document,
14 that's not a memory address, is it?

15 A. Okay. So there is two possibilities.
16 One is it might be a traditional logical ID, human user
17 defined.

18 Another possibility is that, because
19 this patent talks about object-oriented programming
20 language, C/C++ -- and you see that somewhere else in
21 this patent, the whole patent.

22 And then they talk about this Note ID
23 can be declared as an -- as an internal, like an
24 implement of the class and then the whole thing. And
25 then this might be a point to an object. And then if

1 it is an object, then it will be a memory location or
2 address.

3 Q. None of which we just read says that the
4 Notes ID value may be a memory address; is that
5 correct?

6 A. Correct, yeah, the writing doesn't say
7 that there. Somewhere it mentioned they use objective
8 programming language C/C++ for the implementation.

9 So my understanding is when it comes to
10 the implementationwise, this might be an object where
11 the object will be pointed by this Note ID. So it
12 might be a pointer, a physical memory address.

13 Q. Do you agree the Note ID value is a
14 unique identifier in the context of Rohall?

15 A. Yes, in the context of Rohall, it is a
16 unique identifier.

17 But there is one problem, potential
18 problem. The problem is this is a tree structure,
19 right? So every child will have only one parent. But
20 if a child has multiple parents, then this Rohall
21 architecture of hierarchical model will not work.

22 For that, people tried to use it in the
23 past a network model, network data model. If we want
24 to use the hierarchical one, you can do it, but that
25 will be -- you have to duplicate some of the notes, and

1 then reanimate with a different Note ID. That will be
2 a potential problem in that case.

3 But the problem they are trying to
4 solve, they assume that the note they create will have
5 only one. Each child note will have only one parent.
6 So that's why they don't count it as well.

7 Q. So you would agree that Rohall's pointer
8 can be a unique identifier, correct?

9 MR. PADMANABHAN: Object to Rule 611.

10 THE WITNESS: But that -- okay. So
11 that -- that will be created by the program and a sub,
12 and you may not have access to that ID. And if the
13 program let's a terminus, then that address will be
14 gone. So it is not permanent. And this will not be
15 accessible to the human. This will be created by
16 itself, the memory that we get. So that way -- yes, in
17 that sense, it is unique. But I'm saying this -- this
18 uniqueness may not be visible to humans or the end user
19 or for the database. It will not work that way. They
20 cannot connect two tuples and saw. Relational
21 differences may not be possible in that sense.

22 BY MR. BORDER:

23 Q. You are saying it may not be.

24 A. Because -- okay. So the Patent '911
25 talks about relational references, right. So I assume

1 we need to link two tuples somehow. And this linking
2 process is done through some sort of ID. Now if you
3 want to use this pointer, then the human needs to know
4 those pointer values.

5 But this pointer in a traditional
6 programming language, especially in this Rohall patent,
7 the pointer will be some memory address, and this
8 memory address is inaccessible. If the memory -- if
9 the system dominates, if the computer stops or you stop
10 the computer, then the memory will not be accessible.
11 The address will be gone. It is not permanent.

12 On the other hand -- that's one problem.
13 The main problem is the memory address is not visible
14 to the end users or the users so that it can use to
15 populate a database. So that seems -- in order to
16 establish the link or establish the relational
17 references, you need to know those addresses, memory
18 addresses.

19 In the case of pointers, we don't have
20 access to the pointers. That's what is the memory
21 address. So that's why Rohall's pointer can be used in
22 the relational references.

23 Q. Are you familiar with Lotus Notes?

24 A. I know a little bit, yeah.

25 Q. Do you agree with me that Lotus Notes is

1 not built on a hierarchical model?

2 A. So you are asking a question?

3 Q. Yeah. I'm asking if you agree with me
4 that Lotus Notes is not built on a hierarchical data
5 model?

6 A. I think somewhere they mentioned it is
7 built on the hierarchical model, right. If I remember
8 correctly, Lotus Notes talks about the document note ID
9 and then they mention some sort of hierarchy also.

10 Q. So you are not sure?

11 MR. PADMANABHAN: Objection to Rule
12 611.

13 THE WITNESS: If you want, I can check
14 it. I read it a long time ago. I can't recall
15 exactly. My recall is they use hierarchical model.
16 BY MR. BORDER:

17 Q. Okay. Let's go to the -- let's go back
18 to paragraph 30 in your exhibit, in your Declaration?

19 A. 3-0?

20 Q. 3-0.

21 Actually, I'm sorry. I have one more
22 question about Rohall, if you don't mind pulling that
23 back up?

24 A. The Rohall patent?

25 Q. Yes. If you go to paragraph 49, at the

1 very bottom of paragraph 49, it states, Every object
2 within a Notes database is identifiable with a unique
3 identifier, referred to hereinafter as Note ID, as
4 explained hereinafter in greater detail.

5 Do you see that?

6 A. Yes.

7 Q. You don't dispute the accuracy of that
8 statement, do you?

9 A. No, I don't.

10 Q. Okay. Thank you. Let's go back to your
11 exhibit, your Declaration.

12 In paragraph 30, you quote from the '911
13 Patent, and you state that, each tuple or submessage is
14 assigned a unique ID, which serves as the primary key
15 for that relation.

16 Do you see that?

17 A. Uh-huh, yes.

18 Q. Okay. So you agree, so the '911 Patent
19 also uses unique IDs associated with the submessage; is
20 that right?

21 A. Correct, yeah.

22 Q. Let's go to paragraph 99.

23 A. My 99 or Rohall?

24 Q. Your 99, please. In paragraph 99, you
25 state that, There is no teaching or disclosure in

1 Rohall that would motive a skilled artisan to add these
2 rules from Schiavone to Rohall.

3 Do you see that?

4 To add these rules from Schiavone to
5 Rohall.

6 Do you see that?

7 A. So paragraph -- page 43, paragraph 99?

8 Q. Yeah. The last sentence. I'll read it
9 again. Therefore, there is no teaching or disclosure
10 in Rohall that would motive a skilled artisan to add
11 these rules from Schiavone to Rohall.

12 Do you see that?

13 A. Sure, yeah. Skipping -- yeah, that's
14 right.

15 Q. Is it your understanding, under the law
16 of obviousness, that this motivation that you reference
17 here must have been found in Rohall? Is that your
18 understanding?

19 A. Can you say it one more time, please?

20 Q. Sure. What I am asking you is: Is it
21 your understanding that the motivation you discuss in
22 paragraph 99 must have been found in Rohall?

23 A. So I was saying Rohall doesn't talk
24 about the policy or governance models or the
25 application of the rules to emails. So that's why.

1 Schiavone talks about the compliance policy or the
2 rules for the messaging system. So Rohall cannot be
3 used alone to do this.

4 And then I think the argument from your
5 part is that we need to combine Schiavone with Rohall,
6 right?

7 Q. Okay. So -- but do you agree that the
8 analysis of motivation regarding a skilled artisan can
9 rely on common sense, background knowledge of POSITAs,
10 and creativity. Do you agree with that?

11 A. You are asking POSITAs generally or --

12 Q. Well, I'm just responding to your
13 argument here. You state that there is no teaching or
14 disclosure in Rohall that would motive a skilled
15 artisan to add these rules from Schiavone to Rohall.

16 I'm asking you whether that motivation to add
17 the rules from Shiavone to Rohall -- do you agree it
18 can be found based on common sense, the background
19 knowledge of a POSITA, or creativity? Do you agree
20 with that statement?

21 A. So yes. There is some differences.
22 Yes, people have been moved to combine Schiavone and
23 Rohall together. But there are measured differences
24 that exist that will not help POSITA to the goal of
25 what '911 will offer.

1 Q. Okay.

2 A. Schiavone -- sorry. Schiavone offers
3 rules, but those rules can be applied at the message
4 level, not at the whole component level, not at the
5 submessages level.

6 In patent '911, the rule applies -- the
7 rules apply at the submessage level. In other words,
8 the rule may be applied -- a certain rule may be
9 applied for the first message, and then a different
10 rule would be applied for the second submessages. So
11 the same rule would not be applied across all the
12 submessages. That is not the case for the Patent '911,
13 which is different from the Schiavone.

14 The Schiavone does not talk about
15 submessage at all, so there is no concept there at all.
16 And they talk about the rule applied to a message. It
17 doesn't go to the final grain level, the submessage
18 level.

19 Patent '911 talks about that very
20 clearly. And in that plain language in Patent '911, it
21 clearly states all of this multiple times, multiple
22 frames covers that different rules would be applied to
23 different submessages, which is very interesting and
24 significantly different from the Schiavone.

25 So that's why a POSITA will not

1 understand, will not be able to do the same thing with
2 what Patent '911 offers when the POSITA combines
3 Schiavone with the Rohall.

4 Q. Okay. Would you agree that the
5 motivation to combine the rules from Schiavone to
6 Rohall can be found in a document other than Rohall?

7 A. Say -- when I got the message, it was
8 choppy. Can you say one more time, please?

9 Q. I'm just saying that, you agree with me
10 that the motivation to add the rules from Schiavone to
11 Rohall, they may be found outside of the Rohall
12 records, correct?

13 A. Yes.

14 Q. Okay. Let's go to paragraph 142. Now,
15 here you state --

16 A. My 142?

17 Q. Yes, sir.

18 A. Okay.

19 Q. Paragraph 142.

20 A. 142. Sure.

21 Q. Okay. And you state here that,
22 Schiavone does not discuss the different components of
23 email threads, i.e. original message, replies, and
24 forwards, i.e. submessages at all.

25 Do you see that?

1 A. Yeah.

2 Q. Now, you don't dispute that Rohall
3 discloses submessages, do you?

4 A. Okay. So Rohall -- okay. Rohall's
5 objective is different from the Patent '911 that -- I
6 mentioned that in the Declaration. I mentioned in the
7 Declaration Rohall's objective is to maintain a
8 conversation thread.

9 And in the conversation thread what
10 happens is that they want to maintain all the messages
11 intact. But Rohall argues that, at the time, a
12 traditional system clears holes and some of the
13 messages are missing, which they try to address it.

14 The objective was to maintain the whole
15 conversation thread where all the messages would be
16 present. And, obviously, some messages would be
17 present.

18 On the other hand, '911 Patent talks
19 about submessages, and submessages would be the current
20 message. And the whole messages would be known as a
21 history of messages and so on.

22 Then there, based on the compliance
23 policy in case of Patent '911, some messages may be
24 removed. Due to privacy or secrecy, they don't want to
25 give to end users.

1 As you see in my Declaration, the
2 Declaration that we mentioned, due to the compliance
3 policy, some of the messages may be sensitive, which
4 may not need to give to the end user. I'm sorry. Here
5 I should say some submessages may be sensitive. Some
6 submessages may be sensitive. We don't want to
7 disclose those messages to the end user, so the policy
8 would then force us to hide those messages.

9 In that way, Patent '911 introduces the
10 missing parts in the message chain, in the whole
11 message thread on the chain.

12 On the other hand, in the Rohall patent,
13 they try to address the issues in other ways. So they
14 don't want to create the hole. So the objective is
15 different between Patent '911 and Rohall. I want to
16 emphasize that here.

17 Q. Dr. Khan, that had nothing to do with my
18 question. I ask that -- your attorney will have an
19 opportunity to ask questions. If you want to talk
20 about these things, that's fine. That was not my
21 question.

22 My question was very simple. You don't
23 dispute that Rohall discloses submessages, do you?

24 A. Yeah, Rohall discloses submessages as
25 part of the conversation thread, the conversation

1 thread, yes, conversation thread.

2 Q. In an email conversation thread,
3 different submessages can have different senders. Do
4 you agree with that?

5 A. Different submessages.

6 Q. Again, I'm just referencing here to
7 paragraph 142, where you talk about original messages,
8 replies, and forwards. All I'm saying is those
9 submessages can have different senders, correct?

10 A. Where is it in my Declaration, you say?

11 Q. I'm on paragraph 142.

12 A. Uh-huh.

13 Q. You say, Schiavone does not discuss the
14 different components of email threads, i.e., original
15 message, replies, and forwards, i.e., submessages.

16 I am just going -- I'm trying to
17 understand what you mean by these different components.
18 I'm just asking you whether you agree that, in a
19 conversation thread or an email thread, different
20 submessages can have different senders? Do you agree
21 with that?

22 A. Okay. Give me one minute. The line,
23 the Internet, was unstable so...

24 Q. Okay.

25 A. Yeah, so they have different senders,

1 correct.

2 Q. Okay. And different submessages in an
3 email thread can also have different recipients; do you
4 agree with that?

5 A. So one more time, different --

6 Q. Sure. So in an email thread, different
7 submessages can have different recipients; do you agree
8 with that?

9 A. Different recipients, different
10 submessages. Okay. Let me understand the question
11 before I am going to answer. Yeah, it can be different
12 recipients, yes.

13 Q. Now, sticking with paragraph 142, you
14 state, because Sciavone does not discuss the different
15 components of email threads, i.e., submessages, at all,
16 Schiavone does not discuss applying rules at the
17 submessages level.

18 Do you see that?

19 A. Not discuss the -- no. Can you say one
20 more time, please?

21 Q. It is the last sentence in paragraph
22 142.

23 A. Okay. So Schiavone doesn't discuss
24 action on single component of conversation thread
25 because Schiavone doesn't --

1 Yeah.

2 Q. Okay. So you agree that Schiavone does
3 discuss applying rules to emails. You just disagree
4 that it discusses applying rules at the submessages
5 level. Do I have that understanding, correct?

6 A. Correct, yeah, at the submessages level,
7 they don't go. Schiavone doesn't go at the submessage
8 level. They can communicate on the thread. They focus
9 on the whole communication thread, at the beginning,
10 originally or -- so it was necessary to send a
11 conversation thread. The reason is one is sending from
12 A to B. They would focus on A and to B.

13 Q. I think you discuss this in your next
14 paragraph. It is your view that Schiavone treats --
15 applies these rules -- excuse me.

16 It is your opinion that Schiavone
17 selectively applies its rules of the compliance policy
18 to the message as a whole but not to the submessages;
19 is that correct?

20 A. The next paragraph, 143?

21 Q. Yeah. It is just the next paragraph.
22 I'm just kind of reading from the last few sentences.

23 A. Yeah, fine.

24 Q. So do you want me to say the question
25 again?

1 A. Yes, please.

2 Q. Okay. You agree that Schiavone
3 discusses selectively applying rules of the compliance
4 policy to the message as a whole, but you disagree that
5 it discloses selectively applying those rules at the
6 submessage level. Do I understand that correctly?

7 A. Yes, that's correct.

8 Q. Okay. So let's go to paragraph 51 --
9 sorry, 151.

10 A. 151?

11 Q. Yeah.

12 A. Uh-huh.

13 Q. Here we are talking about Schiavone's
14 disclosure related to enforcing certain rules related
15 to recipients involving whether they're in the US and
16 the age of the recipient.

17 Do you remember that discussion,
18 generally?

19 A. Yes.

20 Q. Do you agree that the compliance
21 policies described in Schiavone are based on the
22 attributes of the sender or the recipient or the
23 content of the message?

24 A. I remember Schiavone talks about the
25 main type specified, based on that first, which rule

1 can be needed, and then match it to the user profile.

2 Q. Okay.

3 A. So in this case, the user is the
4 recipient. One of them lives in the US. Another one
5 lives in France, right. So it's the same message, but
6 you may end up with different rules to be applied based
7 on the recipient's profile, the recipient's location.

8 Q. Okay. And further on in that paragraph,
9 151, you say, These disclosures in Schiavone relate to
10 applying different rules to the same message.

11 What do you mean by the same message?

12 A. Correct. Sorry.

13 Q. What do you mean by the same message
14 that you underlined?

15 A. Okay. Same message in this case means
16 because Schiavone talks about some advertisement, some
17 game playing. So those messages, they want to spread
18 to as many people as they can. Now they target a bunch
19 of users. Some of the users live in France. Some of
20 them live in the US.

21 And then there is an age limit, let's
22 say in the US the age limit is very tight, so 18 years
23 and above, you can only view that content, get that
24 message. And in France, maybe, it is 15 years old can
25 see the message.

1 In this case, the same content or the
2 same message go to both places, for both users, French
3 and US. But since the French user is, let's say, below
4 15 years old, that message will be -- not be delivered
5 to the users based on their user profile.

6 On the other hand, the US user is less
7 than 21 years old, the message is delivered to that
8 user. So same message. A different rule will be
9 applied and a different outcome, you can see. That's
10 my understanding of that.

11 Q. Well, what about what would happen if
12 somebody replied to that message? Wouldn't those be
13 different rules being applied?

14 A. If somebody replies to that message,
15 that's a good question. Somebody replies. Okay.
16 First of all, the French user may not get that message
17 due to limits. The US user gets it and replies back.
18 In that case, that message will not go to the --
19 will -- because the rule is a conversation thread,
20 right. So you want to keep all the communications.
21 All the messages you want to skip. So in that case,
22 the message -- and if Rohall replies, it will go to the
23 sender, right.

24 Q. We're talking about Schiavone right now.
25 And your statement, sir, is in paragraph 151. I'm just

1 saying, you know, if someone were to reply to this
2 message that you reference in paragraph 151, that would
3 change who the sender is, and that would change who the
4 recipient is; isn't that right?

5 A. Correct.

6 Q. So there would be different rules that
7 would be applied to that subsequently sent message?

8 MR. PADMANABHAN: Object to Rule 611.

9 THE WITNESS: May I have a moment?

10 Yeah. Okay. So say I reply. Say the US users gets
11 the message and replies back. And now the user -- when
12 user, the US user, replies back, that message has some
13 content blocked out from previous, the previous
14 original sender sent. That will be the submessages.
15 So the first -- right now, we have two submessages.
16 One is the current, and the other is the historical
17 submessage, which is the listed advertisement.

18 Now, in the case of the ruling on the
19 compliance policy, in case of '911, two different rules
20 may be applied. One for the -- for the -- if I reply
21 back, based on that, the rule would be applied. And
22 then the historical message, a different rule would be
23 applied. That is going on here.

24 In case of Schiavone, they don't talk
25 about what would happen in this case, what rule would

1 be applied. But my understanding is the rule would be
2 applied on the most recent action, which is the sender
3 and recipient. Based on that, the rule would be
4 applied. It is not from the old messages. The old
5 messages may have a different address. The role has
6 been reversed here in this case, the sender and the
7 recipient. In that case there is a possibility that a
8 different rule may be applied.

9 Did I explain, or do you want more?

10 BY MR. BORDER:

11 Q. No, I think that's good.

12 So it's your testimony that the reply
13 message in this instance would have different rules
14 applied than the original message; is that right?

15 A. Correct.

16 MR. PADMANABHAN: Objection to Rule 611.

17 THE WITNESS: Okay. I'm saying, first
18 of all, Schiavone will not act like any rule for the
19 submessage or historical submessage. There will be
20 no -- in this case, after the reply, first message is
21 M1, the message content, and then the second -- the
22 first submessage, is Message 1, the second submessage
23 is Message 2. Message 2 is the most recent message,
24 most recent submessage. And M1 is the historical
25 submessages.

1 And based on the patent '911, when you
2 apply that rule, two different rules may be applied.
3 One for Message 1, one for Message 2. It might be
4 entirely different.

5 But in Schiavone, the rule now will be
6 applied only for Message 2 when I reply back. It does
7 not take into consideration Message 1. They will take
8 note. That's my understanding in Schiavone. They
9 don't talk about the submessage level, what they will
10 do. That part is missing entirely.

11 MR. BORDER: Okay. I pass the
12 witness.

13 THE WITNESS: My Internet is bad.
14 Because your voice, I cannot hear sometimes.

15 MR. BORDER: I just said I pass the
16 witness.

17 MR. PADMANABHAN: You pass the witness.
18 Okay. Can we take -- just let's take a five-minute
19 break. I want to make sure if I have any questions or
20 not.

21 MR. BORDER: Sure.

22 MR. PADMANABHAN: I'll quickly look at
23 my notes and come back at, my time, 12:53.

24 (Recess.)

25 MR. PADMANABHAN: We have no questions.

1 MR. BORDER: Okay. Dr. Khan, I
2 appreciate your time. Thank you.

3 MR. PADMANABHAN: Thank you, Scott.

4 MR. BORDER: Can I get a rough and an
5 expedite for one week.

6 (Whereupon, the deposition of LATIFUR
7 KHAN was concluded at 12:50 p.m. Central Time)

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1 STATE OF MINNESOTA)
2 COUNTY OF ANOKA)ss.
3 CERTIFICATE

4 BE IT KNOWN that I, Julie A. Brooks, took the
5 foregoing deposition of LATIFUR KHAN;

6 That the witness, before testifying, was first
7 duly sworn by Michael Rodriguez, to testify the whole
8 truth and nothing but the truth relative to said cause;

9 That the foregoing deposition is a true record of
10 the testimony given by said witness; however, this
11 deposition was taken via videoconference platform and
12 may contain word(s) that were not heard correctly by
13 the reporter or not heard by the reporter due to
14 garbled audio or multiple people speaking at the same
15 time.

16 That I am not related to any of the parties
17 hereto, nor an employee of them, nor interested in the
18 outcome of the action;

19 That the cost of the original has been charged to
20 the party who noticed the deposition, and that all
21 parties who ordered copies have been charged at the
22 same rate for such copies;

23 WITNESS MY HAND AND SEAL this 9th day of
24 March, 2026.

25 



JULIE BROOKS, Notary Public, RPR

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