

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NINTENDO CO., LTD., and NINTENDO OF AMERICA INC.,
Petitioner
v.

ANCORA TECHNOLOGIES, INC.,
Patent Owner.

IPR2021-01338
Patent 6,411,941 B1

Record of Oral Hearing
Held: October 03, 2022

Before THU A. DANG, KEVIN W. CHERRY, and RYAN H. FLAX,
Administrative Patent Judges.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

JERRY RIEDINGER, ESQ.
JOSE VILLARREAL, ESQ.
KYLE CANAVERA, ESQ.
TARA CURTIS, ESQ.
of: Perkins Coie LLP
700 13th Street, NW
Suite 800
Washington, D.C. 20005-3960
(202) 654-6200

ON BEHALF OF THE PATENT OWNER:

DAVID GOSSE, ESQ.
NICHOLAS PETERS, ESQ.
KAREN WANG, ESQ.
of: Fitch, Even, Tabin & Flannery LLP
1250 23rd Street, NW
Suite 410
Washington, D.C. 20037
(202) 419-7000

The above-entitled matter came on for hearing Monday,
October 3, 2022, commencing at 12:00 p.m. EDT.

P-R-O-C-E-E-D-I-N-G-S

11:59 a.m.

JUDGE DANG: Good afternoon, everybody. We are here to hear arguments for case number IPR2021-01338 between Nintendo Co. and Nintendo of America, as Petitioner, and Ancora Technologies, Inc., as Patent Owner. This is concerning U.S. Patent No. 6,411,941. Counsels, please introduce yourselves, starting with Petitioner.

MR. CANAVERA: Yes, Your Honor. Kyle Canavera, on behalf of the Petitioners.

JUDGE DANG: Hello.

MR. GOSSE: Thank you, Your Honor. David Gosse on behalf of Patent Owner.

JUDGE DANG: Okay, great. We had the pre-hearing call in which Patent Owner would like to assess how much time it would like at the end of the proper portion for the private portion. Could you please confirm whether or not thirty minutes for both parties would be enough?

MR. GOSSE: Your Honor, Patent Owner would prefer to reserve ten minutes for the non-public portion of the hearing.

JUDGE DANG: Okay. Ten minutes, okay.

MR. CANAVERA: Your Honor, we would like to reserve ten minutes as well.

JUDGE DANG: Okay, great. So, twenty minutes at the end. Okay, so we will have a public portion; and this will be our public portion and by the end of this portion, each, we will turn off the audios for the phone calls and we will invite the public to leave camera so we can have our private

1 portion. Okay, and so with each reserving ten minutes, you will each have
2 fifty minutes. Petitioner, would you like to begin any time, and you will
3 have fifty minutes -- Oh, I'm sorry. Would you like to reserve any time?

4 MR. CANAVERA: Yes, Your Honor. I'd like to reserve fifteen for
5 rebuttal in this hearing.

6 JUDGE DANG: Okay, great. So thirty-five minutes and then fifteen
7 minutes. Okay. Thank you.

8 MR. CANAVERA: May I begin?

9 JUDGE DANG: Yes, please.

10 MR. CANAVERA: Good afternoon, Your Honors. Kyle Canavera
11 on behalf of the Nintendo Petitioners.

12 I'll discuss five issues today. Two relate to whether the prior art
13 discloses particular claim elements; two relate to the combination of the
14 prior art; and one relates to secondary considerations of non-obviousness.
15 The last issue will be handled in the post-hearing following this one.

16 Looking at slide 2 of our demonstratives, the petition presented two
17 grounds for invalidity. Hellman is the base reference for both. For the
18 primary claim at issue, Claim 1, Hellman discloses all of the elements except
19 for the BIOS memory.

20 Chou discloses that feature. Chou also provides its own motivation to
21 combine the references to arrive at the claimed features.

22 It's a simple combination with its own motivation to combine. We
23 ask that this panel find the claims invalid for the reasons stated in the
24 petition.

1 Turning to the first issue, is the question of whether Hellman plus
2 Chou discloses the using of agent limitation. On slide 10 of our
3 demonstratives, we show Patient Owner's proposed construction for this
4 term. OS-level software program for routine.

5 The Board cannot agree with that construction unless it finds
6 disclaimer. That's not our petition, that's not our position, that's Ancora's
7 position.

8 And the board should take account of the construction that Ancora has
9 proposed for agent in over a decade of litigation. We have examples of
10 those on our slides 11 through 20 of our demonstratives.

11 In repeated presentations to Courts, to this Board, Ancora has said that
12 agent requires software program routine without ever mentioning the OS-
13 level limitation.

14 This is not a position that they had and have changed. As shown on
15 slide 20 of our demonstratives. In February of this year, or I mean January
16 of this year after the preliminary response in this proceeding, Ancora was
17 still saying that the instruction for agent should be software programmer
18 routine, in light of, including the prosecution history which they now say
19 creates disclaimer.

20 JUDGE FLAX: So, counsel, the examiner said it had to be at the OS-
21 level, right, in the notice of allowance?

22 MR. CANAVERA: That's not quite right, Your Honor.

23 JUDGE FLAX: Not quite, right?

24 MR. CANAVERA: The examiner said that the license programs had
25 to be at the OS-level. The examiner did not say the agent was at the OS-

1 level. I can, I'm going to bring up the particular portion I think Your Honor
2 is referring to.

3 On slide 25 of our demonstratives, the examiner said that the prior art
4 do not teach licensed programs running at the OS-level, interacting with the
5 program verification structures stored in the BIOS.

6 And there's continued discussion on the next page, and this is on slide
7 26. The examiner mentions the agent but only at the end, and OS-level is
8 not described in the agent. It's described in the licensed programs.

9 Now I do want to clarify, the Federal Circuit discussed this passage,
10 and we have those excerpts in slides 27, 28, 29. And, the Federal Circuit
11 said that OS-level language was describing the verifier program.

12 But the Federal Circuit said the verifier program is what does Claim 1.
13 It uses the agent. It's not the agent. And the Federal Circuit drew that
14 distinction looking at this very office action.

15 The Federal Circuit described the OS-level language in the Apple
16 appeal and did not describe agent. They were talking about the program and
17 the unresided verifier software.

18 It's simply not a description of agent itself. It's a description of
19 whatever does Claim 1.

20 The Board should not reach this construction for OS-level for another
21 reason. Apart from the fact that agent is not described in the specification
22 and that the prosecution history that Ancora points to is not describing agent,
23 it's not clear what the construction of agent really means. Pardon me, the
24 construction of OS-level really means.

1 Ancora has used OS-level in a multitude of ways. On slide 30 we
2 show one example. In the office action that Ancora primarily points to,
3 which is shown here on slide 30, there's this sort of time wise distinction.

4 They say the BIOS is a configuration utility. It runs for a while, then
5 it's done. Things after that are OS-level. So that's one potential meaning of
6 OS-level.

7 JUDGE DANG: Counselor?

8 MR. CANAVERA: Yes, Your Honor?

9 JUDGE DANG: Are you saying that OS-level needs to be defined
10 because one of ordinary skill in the art would not know what OS-level is?

11 MR. CANAVERA: I am saying something similar, Your Honor. I'm
12 saying that OS-level is not sufficiently clear to establish clear and
13 unmistakable disclaimer of the claim.

14 OS-level is used sort of like a moniker here. It's, maybe it's
15 something other than BIOS. It's not, it's not used in the specification. And
16 the operating system is never mentioned in the specification, so it's not a
17 precise term, or even a reasonably precise term.

18 It is a, it is a moniker. It's a sort of vague notion of something maybe
19 different from BIOS, but it's nothing clear than that.

20 JUDGE DANG: Operating system is not clear?

21 MR. CANAVERA: Operating system level.

22 JUDGE DANG: Oh, I see.

23 MR. CANAVERA: That's the issue, Your Honor.

24 JUDGE DANG: Yes.

1 MR. CANAVERA: In deposition, the inventor said the operating
2 system level does not mean the operating system. He said we did not invent
3 the operating system. I don't think there's a dispute on that, but if OS-level
4 is not the operating system, the question is what is it?

5 Is it something the operating system uses? Is it something that uses
6 the operating system? Is it something existing in parallel with the operating
7 system? That's the challenge.

8 And it's heightened by the fact that Ancora itself has not used this
9 term consistently. I showed one of those examples, this temporal distinction
10 on slide 30. They've used that other places; we show that on slide 31.

11 There's a related but slightly different characterization on slide 32.
12 It's sort of a logical separate from the BIOS. That's maybe a similar idea,
13 but it's not a sort of time wise distinction.

14 This is from the patent and a response here, and Dr. Martin's
15 declaration, Ancora's expert.

16 But there's a variety of other characterizations, especially coming
17 from Ancora's own expert. When asked about what OS-level means, he
18 used terms like as shown on slide 35, programs that are running that use the
19 running operating system services as part of their operation. So, there would
20 be something that uses the OS.

21 We had another characterization at that same deposition relying on
22 operating system services, and, and doing so after the operating system is
23 running. So that sort of mixes two of the previous characterizations.

1 So, operating system, I think that we can say the person with skill in
2 the art knows what that is. But what it means to describe an agent as OS-
3 level, that's not sufficiently clear to be clear and unmistakable disavowal.

4 There's also the software only limitation in the construction that
5 Ancora's proposing. This one I don't think Ancora's saying it's a
6 disclaimer, I think they're trying to say it's the plain and ordinary meaning
7 of agent.

8 But the extrinsic or evidence show that's not true. As shown on slide
9 38, here is a dictionary definition that says an agent can be software,
10 hardware, or both.

11 And the reason we have to look to the extrinsic evidence is because
12 the patent just doesn't tell us. I'm sure you're seen this in the briefing.
13 Agent's just not in the patent.

14 And that is the difficulty with creating negative limitations, disclaimer
15 on a term that just doesn't show up.

16 This Board has already addressed the software only limitation in the
17 institution decision of the Sony IPR petition, which had the same grounds as
18 the present one.

19 The Board found that the software only limitation was a negative
20 limitation, and found again, not, not being mentioned in the specification,
21 there was no basis for a negative limitation to software only.

22 There's another reason that a software only limitation is not
23 appropriate. It's inconsistent with Ancora's own infringement allegations
24 shown on slide 40.

1 On the top of the slide is the claim language using an agent to set up a
2 verification structure in the erasable, non-volatile memory of the BIOS.

3 On the bottom is paragraph 44 from the infringement complaint
4 against Nintendo. So, for this feature, you can see the parallel, the parallel
5 language here, and I can represent to Your Honors, there's no other mention
6 of agent in that complaint.

7 This is the allegation of infringement. They point to OTA Servers,
8 one or more OTA Servers. Those are over-the-air update servers. They are
9 servers. So just last year, Ancora says an agent can be a server.

10 They didn't, they didn't think to mention that the hardware must be
11 excluded. They didn't explain how a server off of the device being operated
12 on is somehow OS-level.

13 Nonetheless, OTA server is their allegation of an agent. But that is
14 inconsistent with their construction now, which is this OS-level and software
15 only.

16 If the Board does agree with this construction with the OS-level over
17 the software only limitation, Hellman does disclose those, or render them
18 obvious.

19 As shown on slide 42 of our demonstratives, we actually address the
20 software only limitation from the beginning of the case. This is from Dr.
21 Wolfe's declaration which accompanied our petition.

22 And he explained that to a person of skill in the art reading Hellman,
23 he understands that the Update Unit 36 can be implemented as software,
24 hardware, or a combination of both. That's in paragraph 137a as shown.

1 In paragraph 138 he also opined that the authorization billing Unit 13,
2 which is akin to a server, that's in Hellman, is also an agent or a works with
3 the Update Unit 36 as an agent.

4 That very closely parallels the infringement contentions that I just
5 showed you.

6 With those opening papers we also explained that there is a motivation
7 to combine, a motivation to modify Hellman that a person of skill in the art,
8 knowing that there could be a software implementation, a hardware
9 implementation, or a combination, prefers the software implementation
10 because it can update the logic for the Update Unit 36 without having to
11 remove hardware from the computer, send it back to the manufacturer.

12 As to OS-level, there is a lack of clarity on what would be required for
13 OS-level. But Hellman has, Hellman's Update Unit 36 meets the
14 requirements of that term in the various characterizations that Ancora has
15 provided.

16 I want to address the first of the prosecution history. Your Honor
17 raised that and as I said, the examiner was not describing agent when he
18 talked about OS-level. He described license programs, and the Federal
19 Circuit said the verifier software, again, that's a thing that uses the agent not
20 the agent itself.

21 But if there's something to be taken away there, it's that the, there are
22 license records in the BIOS memory for things that are not necessarily
23 BIOS.

24 And the agent was added during prosecution to overcome and enable
25 in rejection to give that bridge. And Hellman Update Unit 36 does just that.

1 There's a software package 17 being verified to Update Unit 36, that
2 verifies that by writing into the EE prom of non-volatile memory 37.

3 If the agent is anything based on the prosecution history, it's this
4 bridge to the EE prom of the BIOS memory. And that's exactly what
5 Update Unit 36 exists in Hellman; that's exactly why it exists at Hellman.

6 As for Ancora's other characterizations of what OS-level means,
7 Hellman has those as well. There is, Your Honors will recall the temporal
8 distinction that maybe OS-level is everything that runs after the BIOS
9 configuration utility has finished.

10 As we explained in our papers, and as Dr. Wolfe explained in his
11 declaration, the Update Unit 36, and I'm looking at slide 46 here of our
12 demonstratives, is something that is running throughout the operation of the
13 computer.

14 It's verifying the software, the software package 17 should be at the
15 top, anytime the user tries to run it. It must be running after the BIOS has
16 completed or else it couldn't verify the software.

17 So, for the temporal distinction, the Update Unit 36 absolutely is still
18 running after BIOS is completed. Because this runs when the user tries to
19 operate the software program.

20 As for Ancora's logical separation-type characterization of OS-level,
21 again that's, that maybe OS-level is anything logically separate from BIOS,
22 Hellman discloses that, too.

23 Hellman doesn't explicitly mention a BIOS, we rely on Chou, on
24 Chou for the BIOS and the BIOS memory. So, on its face, Update Unit 36
25 can't really be BIOS if there's no BIOS in Hellman.

1 But more to the point, again, Update Unit 36 has to be available when
2 a user tries to run a software application. And according to Ancora, and
3 their statements in the office action they point to for disclaimer, that's not
4 possible for BIOS.

5 So again, the logical separation Update Unit 36 meets that
6 characterization of OS-level, as well.

7 And then for the characterization of OS-level as something that uses
8 OS resources, Hellman reached, meets that as well. Hellman doesn't
9 explicitly mention an operating system, but the 941 Patent doesn't either.

10 And the way that Ancora's expert got to their being an operating
11 system in the 941 Patent, that same analysis is present in Hellman.

12 It describes things that would tend to require an operating system. Dr.
13 Wolfe explained that that's true in Hellman, as well, in paragraph 31 of his
14 second declaration.

15 And in particular, he explained that Update Unit 36 does things that
16 would require operating system resources. So, it does arithmetic, it would
17 use a clock. It would use processing power.

18 So, if OS-level means something that relies on OS services, then
19 Hellman's Update Unit 36 does that, as well.

20 So, we don't think Your Honors should agree with either of the
21 narrowing limitations on agent, but if you do, Hellman discloses those
22 features or renders them obvious.

23 If there are no other questions, if there are no questions on agent, I'll
24 move on to the verification structure element.

1 Looking at slide 48 of our, pardon me, looking at slide 48 of our
2 demonstratives, we have argued since the beginning of the case in our
3 petition and in the accompanying Wolfe declaration, that the verification
4 structure exists in Hellman because Hellman's Update Unit 36 stores data,
5 these values M in the non-volatile memory 37.

6 It does so in a space set aside based on those hash values states, which
7 are memory addresses, and it does so based on that specific memory address
8 scheme using H to figure out the right memory address for storing M.

9 Slide 48 is from our petition. Slides 49 and 50 are from the
10 accompanying Wolfe declaration.

11 And that has been our position from the start, and that is still our
12 position now. Update Unit 36 is managing a data structure in non-volatile
13 memory 37 managing these values M at specific, defined locations H.

14 In the Patient Owner response, they said that there's no verification
15 structure. They said we had left it out, or that there was nothing there.

16 But their position seems to either misunderstand Hellman, or just
17 doesn't appreciate what Hellman is doing. They said there was a nebulous
18 collection of hash values in non-volatile memory 37. Said that's all that
19 Hellman had.

20 That's not correct for a few reasons. As we explained, the hash value
21 aren't actually stored, so there are no hash values in the first place.

22 But the things that are stored, the values M are not, it's not nebulous
23 collection. They're stored at specific locations defined by this hash value H,
24 which is computed from a hash function generator based on the software
25 program that the user is trying to use.

1 In order to clarify that, Dr. Wolfe in his second declaration had a very
2 short response. And he said it's not a nebulous collection, it is basically just
3 a table. And that's shown on slide 51 or our demonstratives. He did a very
4 simple illustration of that.

5 That has been our position from the start. It is still our position now.
6 It's a data structure. It's managed by Update Unit 36. It's held in non-
7 volatile memory 37.

8 We think the Board should reject Ancora's argument here for three
9 reasons. Number one, it's just not clear. As I said a moment ago, their
10 argument about there being a nebulous collection of data stored in non-
11 volatile memory 37 is actually not how Hellman works. So that's enough to
12 reject it.

13 There's also no support from any expert testimony for Ancora's
14 position. That's just attorney argument for seeking Hellman and Dr.
15 Wolfe's explanation of this element. That on its own is enough to reject it.

16 It's also not supported by the 941 Patent itself. So, what is a
17 verification structure? The 941 Patent just won't tell us. It uses the phrase,
18 but it never tells us what it requires.

19 Ancora seems to be suggesting it's, it needs something more than
20 Hellman has, but there's no basis to find that in the 941 Patent. 941 Patent
21 uses the phrase, and the only real characterization it gives is that it is set up.

22 And, on slide 49 you'll see the, pardon me on slide 48. If you see the
23 citation there at the bottom there, it's column 6, lines 17 through 21, that's
24 really the most detailed characterization we get for verification structure in
25 the 941 Patent.

1 It doesn't say what its structure is. Doesn't say how it's organized.
2 Doesn't give you an addressing scheme. Doesn't give you any of the things
3 that Hellman actually does give you.

4 All it says is that in some embodiment setting up a verification
5 structure is finding a key and allotting memory space. Hellman has that.

6 So whatever verification structure is Hellman has that, and it has
7 more.

8 I'm going to go on now to the next issue, the motivation to combine
9 Hellman and Chou. So just a brief refresh on the basis of this combination.

10 On slide 54 of our demonstratives, we have the Figure 1 from the 941
11 Patent. On the right we have Figure 6 from Hellman with some markup that
12 we've added that we presented in the petition.

13 Hellman has the permanent memory of the ROM there in red, just like
14 the 941 Patent. It has the RAM in green, just like the 941 Patent has.

15 It has what it calls non-volatile memory 37, and it tells us that non-
16 volatile memory 37 should be CMOS RAM or EE prom.

17 It does not say that that's the BIOS memory, but that comes from
18 Chou. Chou tells us both that in the late '90s as of the priority date of this
19 patent, the EE prom was increasingly being used for BIOS memory.

20 And it actually contrasts the EE prom over CMOS RAM, the very two
21 things that Hellman himself considered.

22 It also tells you a benefit to storing sensitive information in that EE
23 prom. The combination arises from Chou's own teaching, as well as three
24 other reasons that we gave in the petition.

1 JUDGE DANG: I have a question, counselor. Ok, so in Hellman
2 there's no talk about BIOS at all.

3 MR. CANAVERA: That's right.

4 JUDGE DANG: So, in Hellman, we don't know where the software
5 is, right?

6 MR. CANAVERA: Oh, the software package 17?

7 JUDGE DANG: Yes, the one that's being verified.

8 MR. CANAVERA: That's right. We explained in the petition that it
9 would be stored in the temporary memory 28 for operation, but it does not
10 tell us where it comes from before that. That's right.

11 JUDGE DANG: Ok, so and then in Chou, the program, the routine is
12 a BIOS routine. And the purpose of Chou is putting the verification along
13 with the verification, I mean with the routine itself.

14 So, my question is, are you from that, saying that you modify Hellman
15 to put I guess, the, well, you don't even have a BIOS routine. So on, I guess
16 you know, can you clarify as to your, your, you know, I guess your
17 motivation to basically just fix Hellman so that it will be just like Chou
18 without hindsight?

19 MR. CANAVERA: Yes, certainly.

20 The short answer to that is there's no hindsight because Chou itself
21 tells us to do this. But if I could explain.

22 JUDGE DANG: Ok.

23 MR. CANAVERA: And I think Your Honor might be asking there is
24 also sort of an antecedent, a first step which is would there be BIOS in
25 Hellman in the combination.

1 JUDGE DANG: Right.

2 MR. CANAVERA: And then would non-volatile memory 37 be the
3 BIOS memory.

4 JUDGE DANG: Right.

5 MR. CANAVERA: So, let me just briefly address the first point,
6 which is and we explained this in the petition and Dr. Wolfe explained it that
7 you would have BIOS in Hellman as of the priority date for several reasons.

8 The first one is Hellman is a 1983 Disclosure, and it is a disclosure
9 that gives you embodiments like a computer with a CPU, and computer
10 programs, but it also gives you a record player, a video game player.

11 So, in that sense it's not surprising that these figures of Hellman don't
12 say BIOS because there are configuration, there are products that probably
13 didn't have BIOS.

14 But when a person skilled in the art is reading Hellman in the late '90s
15 as Dr. Wolfe explained, he understands that in the computer embodiment,
16 which has got a CPU and it's running computer programs, it has BIOS
17 because effectively all computers at that time had BIOS.

18 And this is not just his opinion. Ancora said this during prosecution
19 and this panel, or this Board has previously credited that statement.

20 So that addresses the question of would there be BIOS. And there
21 would because, because of the date of the invention. Chou shows us a
22 regular computer that has BIOS so that's somewhat unsurprising. And also
23 on Ancora's own statements. So, there would be BIOS.

1 So, the second question would non-volatile memory 37 be the BIOS
2 memory, and I'll address that. We gave four reasons for why that would be
3 the case.

4 The clearest one is Chou itself, and I have on slide 56 Chou's teaching
5 on this. Chou said says, and actually I should say in the paragraph before
6 what I'm showing on slide 56, Chou says well in the past it was common to
7 use CMOS RAM for storing passwords.

8 But hey, that has the problem if you just delete that from the CMOS
9 RAM, or cut the power to the CMOS RAM, then you can just get rid of the
10 passwords altogether.

11 In that context, Chou says well nowadays, EE prom is more and more
12 commonly used for BIOS memory. And the benefit being that you can
13 update the BIOS routines.

14 But the key thing on slide 56 is Hellman said, pardon me, Chou says
15 there's a benefit to storing the passwords, the security routine, which Chou
16 was adding anew, in that BIOS memory.

17 Because if you delete that from the BIOS memory, the computer just
18 won't start. And as Dr. Wolfe explained, what does that mean?

19 That means Chou saying I'll put my sensitive data amidst the BIOS
20 programs, and if someone tries to wipe that out, they've wiped out the BIOS.
21 The thing just won't start.

22 This is actually the same motivation noticed by the 941 Patent in, or
23 on column 3, that if you put data amidst the BIOS, it just increases the risk
24 of trying to mess with that data, to tamper with that data.

1 And Chou says to do that, do that so people can't bypass the sensitive
2 data you've stored there. They can't delete it. They can't edit it. And that's
3 just from Chou itself.

4 That's the primary reason to use, to put the licensed records in, this
5 sensitive data that Hellman itself really wants to avoid tampering with, to put
6 those amidst the BIOS. So, people can't tamper with them.

7 And those fit together. Because Hellman tells us how to avoid
8 tampering with the licensed values M, but only when they're transmitted
9 from the server to the base unit. They're encrypted for that transmission.
10 He provides some other security techniques.

11 But once they're stored on the device, they're not encrypted, they are
12 plain text in Hellman's base disclosure. So, as we explained in the petition,
13 Dr. Wolfe's declaration, a person of skill in the art reads Hellman, sees a
14 great interest in stopping software piracy and the tampering with the values
15 M.

16 Hellman solves part of that problem but doesn't solve that problem on
17 the device itself. And that's where Chou comes in. Chou says if you have
18 data that you don't want tampered with, here's one way to protect it. Put it
19 in the BIOS data.

20 Again, it's actually just what the 941 Patent notice, which is the Chou
21 notice that, noticed that earlier.

22 We have other, the three other motivations to combine as well. Slide
23 57 is one of those. And I was looking for this quote, Your Honor, earlier to
24 the question about whether there be BIOS in Hellman, and this is the Patient

1 Owner's representation of the Patent Office, on the bottom of slide 57, and
2 the prosecution history.

3 And, the Board is previously credited that as saying yes, there would
4 be BIOS in Hellman.

5 So, slide 57 has the second motivation to combine, which is this.
6 Hellman describes non-volatile memory 37 and says this could be CMOS
7 RAM or EE prom. Those are two very unique types of storage.

8 Chou says BIOS memory happened to be CMOS RAM where EE
9 prom. And the EE prom is better. So, when a person skilled in the art is
10 reading Hellman and Chou together in the late '90s, there's already one
11 motivation from the thing we just read about the reducing tampering.

12 The other one is that Hellman's describing that those very things that
13 Hellman, that Chou's saying that those very things that Hellman said were
14 good for storing BIOS are the exact places Hellman says I want to store my
15 values M. That's a separate but related motivation to combine.

16 Then we had two others, slide 58 and slide 59. Case law KSR tells us
17 to look to the context, right. And one of those is looking at Hellman in the
18 late '90s, where am I going to put the licensed values M.

19 Hellman tells us do it in CMOS RAM or EE prom. Dr. Wolfe
20 explained in the last '90s a computer didn't have many of those. They were
21 not cheap storage mechanisms. They were a specialty.

22 And so, a person of skill in the art is going to want to put it in one of
23 the ones that already exist. And Chou tells us that yes, the EE prom is where
24 a good place to put files. It's the preferred place to store your BIOS
25 routines.

1 So, this is, there were a limited number of places to put the value M.
2 This supports the other two motivations that we just described.

3 And slide 59, again, this is the context of a person of skill in the art
4 when they're looking for a place to store the licensed values M, they want to
5 not add cost; not add size to Hellman's system.

6 That is a motivation for people in this industry and so they again
7 would look to an EE prom that exists, to the extent one does, and Chou tells
8 us that there's the BIOS EE prom.

9 So collectively, we think Chou is, the clearest. It tells you here's a
10 way to stop people from messing with sensitive data. Hellman says oh, I
11 have sensitive data and I want to protect it. And that two mesh together
12 quite well. But there are these other bases to support that as well.

13 JUDGE DANG: I want to clarify.

14 So, the EE prom would, ok, so the EE prom because of Chou you
15 would put the EE prom as the BIOS EE prom, right for –

16 MR. CANAVERA: That's correct, Your Honor.

17 JUDGE DANG: - for in in Hellman.

18 And then you would then also move the Update Unit to be, you know,
19 communicating or exchanging H value and M value with that EE prom?

20 MR. CANAVERA: Ok, I think I understand your question and I may
21 have missed it before. In the combination, Update Unite 36 would do the
22 same thing it does now, non-volatile memory would still be there.

23 In the combination I'm showing on slide 61, one of Chou's slides, the
24 security, the extra security things that Chou added, are not carried over. We
25 just need a space for the values of M.

1 But we're not proposing that the security routines from Chou are
2 brought over, just the teaching that you can put sensitive data in the BIOS
3 memory.

4 So, like on slide 61, I have the passwords highlighted. Those are two
5 of the new things that Chou puts in the BIOS memory.

6 What we're explaining and what Dr. Wolfe explained in the
7 declaration is that space for password one, password two, security check,
8 those sorts of things, that's the space we would use for the, the values M.
9 The space that Hellman tells us we need to allot to the licensed values M.

10 But we're not proposing to combine the security, the new security
11 features of Chou. Just that teaching.

12 JUDGE DANG: Okay great, that's why I was wondering. Thank
13 you.

14 MR. CANAVERA: There for the longer answer to the initial
15 question.

16 I do want to touch on one other item that Patent Owner has raised
17 under the label of motivation to combine. They've argued that when you
18 combine Hellman and Chou, the licensed records M are not actually in the
19 BIOS memory.

20 I want to flag that this is, seems to be based on a construction of
21 memory of the BIOS that they raised in the preliminary response, which I
22 show on the top of slide 60. And they did not retain it in the Patent Owner
23 response at the bottom of slide 60.

1 And this is important here as a fairness matter. They spent over 1,000
2 words arguing this issue in the preliminary response. And so they are, I
3 think they ask Your Honors to take notice of that argument.

4 That would not be fair to us. We did not have that extra space to
5 argue an additional claim construction position. But even if Your Honors
6 get to that, Hellman has what the 941 patent describes, and what the claims
7 requires.

8 The claims require the licensed records memory of the BIOS. Patient
9 Owner's position it seems to be well, but in the combination, you wouldn't
10 still use the part of memory used by the license, where the licensed values
11 are stored.

12 But the 941 Patent doesn't tell you to do that either. It doesn't tell you
13 how you would possibly do that. How would BIOS keep using memory
14 space that now stores license records? The patent just doesn't tell you.

15 Whatever the distinction is, it's just not supported by the 941 Patent.
16 As far as what storing licensed records in BIOS memory means, the truth is
17 that slide 1 or the Figure 1 shown in slide 61 is mostly what we have.

18 It's a big rectangle for the second non-volatile memory. That's the
19 erasable portion for BIOS memory. And it's a smaller rectangle inside that,
20 the licensed records 10, 11, and 12.

21 It doesn't give us any further technical disclosure of how these two
22 things interact. That's exactly what Chou has. It's in Figure 3, it's in Figure
23 7. I have one of those on slide 61.

24 JUDGE FLAX: So, in that figure, where would the agent be?

25 MR. CANAVERA: The agent is not –

1 JUDGE FLAX: The claimed agent.

2 MR. CANAVERA: The agent's not actually in the BIOS memory.
3 The licensed records are in the BIOS memory.

4 JUDGE FLAX: But something in Figure 1 is not in the BIOS
5 memory, right? You have volatile memory there, too. So, there's some
6 interaction between the system and the BIOS that would be the agent? Is
7 that fair? Something that interacts with it.

8 MR. CANAVERA: Are you, you're referring to the 941 Patent?

9 JUDGE FLAX: Yes.

10 MR. CANAVERA: Yes, the first non-volatile memory is the ROM.
11 Second non-volatile memory is the EE prom. The volatile memory is the
12 RAM.

13 JUDGE FLAX: Right. And then the agent would be what?

14 MR. CANAVERA: It would be something, I'm not sure how you
15 would depict that. It's something that can read and write the second non-
16 volatile memory.

17 I'm not sure how that would best be represented, but it's something
18 that can read and write to that memory. That's what the claim required,
19 setting up a verification structure in the memory of the BIOS.

20 Again, that's just what Hellman has. It has the Update Unit 36. It's
21 their term read and write to the EE prom.

22 Did that answer your question, Your Honor?

23 JUDGE FLAX: Well, I'm just trying to find what, where the spec
24 supports agents so that we can understand what agent is, and how it interacts

1 with the memories as it needs to, to update it or access it. Whatever needs to
2 be done.

3 MR. CANAVERA: Well, I'll be honest, Your Honor, that's not an
4 easy one. The spec doesn't really, it doesn't mention agent in it. It's not
5 clear that there really contemplates it.

6 I think Ancora has at points, pointed to, and their expert did it at
7 deposition, point to the disclosed E² prom manipulation commands at the top
8 of column 2.

9 And maybe that's an agent, or maybe that sort of foreshadow. I think
10 he said foreshadow is an agent.

11 I think that's what we have. We know it's supposed to be something
12 that can read and write to this BIOS memory. Maybe it's E² prom
13 manipulation commands. Maybe that's an example of an agent. I'm not
14 sure.

15 JUDGE FLAX: I mean could that be the CPU?

16 MR. CANAVERA: I think it could be. I think anything that reads
17 and writes to the non-volatile memory. The spec just doesn't limit it past
18 that. It just –

19 JUDGE FLAX: Is it so ubiquitous a term in the computer arts that
20 someone reading the claim would just know what it meant?

21 MR. CANAVERA: I don't know that that's true. I think it's as the
22 extrinsic evidence has shown, we have some dictionary definitions. They
23 have shown some, too.

24 It's a term that was used in the art. I think it's clear enough to show
25 what it does and Hellman's, Update Unit 36 does that. I think putting any

1 other limitations on that is just not supported by either intrinsic or extrinsic
2 evidence.

3 JUDGE FLAX: Does Chou have anything analogous to the agent?
4 That shows anything.

5 MR. CANAVERA: Chou doesn't separately describe anything as like
6 a unit that does it, but Chou is reading and writing to the BIOS memory.
7 The passwords, the security check, the computer ID.

8 JUDGE FLAX: And, that interaction would be an agent of sorts?

9 MR. CANAVERA: Yes, if an agent is something that reads and
10 writes to BIOS memory, then it would be the same thing.

11 JUDGE FLAX: Ok, thanks.

12 MR. CANAVERA: I see I have just about exhausted my time. If
13 there are no other questions -

14 JUDGE CHERRY: I actually have one more question. It doesn't
15 really matter though in the combination really, what Chou, how Chou
16 operates because we're starting with, with Hellman and we're just taking the
17 teaching of storing in the BIOS portion of the EE prom to modify Hellman,
18 right?

19 MR. CANAVERA: That's right, Your Honor.

20 I guess you would say we're relying on Chou for the existence of a
21 BIOS memory though again in light of the art, that probably was known
22 anyway.

23 But really it's just that, that teaching to do, to put the licensed values
24 in the BIOS memory.

1 JUDGE CHERRY: So, we don't have to be able to bodily combine
2 the references?

3 MR. CANAVERA: That's right, this is absolutely not a combination
4 of that security feature and issues of bodily incorporation are, should not be,
5 should not be an issue.

6 JUDGE DANG: Great, thank you so much.

7 MR. CANAVERA: Thank you, Your Honors.

8 JUDGE DANG: Would you like to reserve time to for a rebuttal?

9 MR. GOSSE: Yes, Your Honor, if I could reserve 10 minutes for
10 rebuttal.

11 JUDGE DANG: Ok, so 40 minutes.

12 You can begin any time. Thank you.

13 MR. GOSSE: Thank you, Your Honor.

14 Good afternoon, Your Honors. David Gosse on behalf of Patient
15 Owner Ancora Technologies, Inc. I'm joined by my partner Nick Peters,
16 and the inventor of the 941 Patent, Miki Mullor, who is also the principal of
17 Ancora Technologies, Inc.

18 Your Honors, none of the cited references, and this includes the art
19 that's cited. In examination the art that was cited during the reexamination,
20 and also the art that's cited here, none of those cited references disclose an
21 operating system level software interacting with BIOS memory and let alone
22 to set up a verification structure that's capable of storing at least one licensed
23 record.

24 The prosecution history unambiguously shows that applicants and
25 examiner understood that the claimed agent operates at the OS-level.

1 No other limitation present in the claims. And, this is admitted by the
2 Petitioners, no other limitation present in the claims incorporates those
3 arguments from prosecution.

4 In view of that history, the claimed agent must be restricted to an
5 operating system-level, software program for routine.

6 Your Honors, I have three points on non-obviousness. First, neither
7 Hellman nor Chou, nor the asserted combination teaches the claimed OS-
8 level agent. Petitioner's obviousness arguments twist the Hellman patent
9 beyond recognition.

10 Second, even under the plain meaning of agent, Petitioners have not
11 shown the claims are obvious. The claim meaning of agent requires a
12 software program or routine.

13 Hellman's base Unit 12 and the Update Unit 36, are hardware
14 implemented, tamper resistant devices. In this context, none of the
15 Petitioner's arguments render the claims obvious.

16 Further, the person of skill in the art –

17 JUDGE FLAX: So why would the software be the plain and ordinary
18 meaning, and not inclusive? The dictionary definition that they threw up
19 there at the beginning included software or hardware.

20 Why would that not be the right scope?

21 MR. GOSSE: Well first of all, obviously software runs on hardware.
22 That's understood and acknowledged by everyone. But when you look at
23 the dictionary definition, the Oxford dictionary of computing that the
24 Petitioners cite, that dictionary is describing not just computers, but it's
25 talking about robots as an example of a physically implemented agent, right.

1 It's a physical agent with sensors and actuators that act on its
2 environment. It's physical environment. So that definition is clearly beyond
3 the scope of the 941 Patent.

4 The 941 Patent is talking about a computer implemented invention, an
5 invention that manipulates information within the computer as opposed to
6 physical environment.

7 Third point on non-obviousness, Your Honors, is that the objective
8 indicia of non-obviousness weighs strongly in favor of the 941 Patent, based
9 on industry praise and commercial success as we'll discuss during the
10 confidential portion of the hearing.

11 If I could turn to the first argument, Your Honors, on claim
12 interpretation. There's two disputes as pointed out by Petitioner's counsel.

13 The first is of course, whether the prosecution history requires OS-
14 level software programs or routines, and the second relates to what is the
15 plain meaning as we've just discussed.

16 Turning to slide 12, Your Honors. Case law binds the applicant to the
17 arguments that were made in the context of examination, particularly when
18 the examiner adopts the arguments that were put forth by the applicant.

19 The Kaken Pharmaceuticals case has not been distinguished by
20 Petitioners, and is one example where the Federal Circuit has held that an
21 implicit statement, an implicit disavowal on the record during prosecution
22 histories is adequate to disclaim scope.

23 And, that disclaimer is clear here in the context of the prosecution's –
24 JUDGE CHERRY: Can you point us to the spot in the prosecution
25 history where you made that disclaimer?

1 MR. GOSSE: Your Honor, the context of the prosecution history has
2 to be read as a whole. And we'll start if I could, at slide 18, where the
3 examiner ultimately, and this is a point that Petitioner's counsel avoided
4 during his presentation.

5 The examiner ultimately says that the invention overcomes difficulties
6 in the art by using an agent. Right there in the examiner's statement of
7 reasons for allowance, the examiner is talking about the agent as the
8 distinction over the art.

9 And, that agent is used to set up the verification structure in the
10 erasable non-volatile memory of the BIOS.

11 JUDGE CHERRY: Where is the agent disclosed in your
12 specification?

13 MR. GOSSE: Your Honor at several points throughout the
14 specification. First of all, as Dr. Martin has explained and he explained at
15 his deposition, the specification talks about application software, for
16 example, Lotus 1-2-3.

17 That would require based on the knowledge of a person of skill in the
18 art, an operating system. And further, the specification discloses using EE
19 prom manipulation commands starting at the bottom of column 1, and
20 running through the top of column 2.

21 Those EE prom manipulation commands are disclosed as reading and
22 writing the non-volatile memory, and would be implemented as part of
23 software running at the operating system level as would be understood by
24 the person of skill in the art.

25 In the context of examination, Your Honor, the examiner's –

1 JUDGE CHERRY: So, you're saying the EE prom manipulation
2 commands are not the agent?

3 MR. GOSSE: They are evidence of what the agent would be using to
4 manipulate the BIOS, and the memory of the BIOS, Your Honor.

5 JUDGE CHERRY: So, I feel like the agent seems like it's kind of a
6 ghost in the specification. We see these things that are left by it, but nothing
7 about it.

8 Is that fair to say?

9 MR. GOSSE: No, Your Honor.

10 The software, the 941 Patent is talking about software throughout, and
11 clearly talking about an operating system-level software, including
12 application programs.

13 And discussing application programmers in the context of what would
14 or would not be obvious in terms of writing. Or what would be known,
15 right, that application programmers generally would not think to write
16 information into the BIOS memory.

17 All of this software, and particularly the talk about the EE prom
18 manipulation commands, is sufficient disclosure to include an agent, which
19 is nothing more than a software program or routine.

20 JUDGE CHERRY: But does an agent, is an agent necessarily known
21 to run at the OS-level?

22 MR. GOSSE: Well, it's certainly not running at the BIOS, Your
23 Honor. An agent is, as many of the dictionary definitions point out, it's a
24 piece of software that runs in the background. That concept of background
25 operation is not part of what would be understood as the BIOS.

1 So, a person of skill in the art would recognize an agent generally as
2 being operating system-level, as disclosed. And ultimately, as discussed in
3 the prosecution history.

4 JUDGE CHERRY: Does your patent talk about operating system?

5 MR. GOSSE: No, Your Honor, not explicitly. It does include plenty
6 of disclosures that would make clear that it is discussing an operating
7 system-level software.

8 JUDGE CHERRY: Well, what exactly then is the operating system-
9 level? How would you define operating system-level?

10 MR. GOSSE: Your Honor, that's a term that should be relatively
11 clear. And what Petitioners have —

12 JUDGE CHERRY: Well, I mean it seems like the Petitioner has
13 shown that your expert has been kind of moving around on it. So, what
14 exactly do you define it as?

15 MR. GOSSE: Your Honor, everything that the Petitioner has argued
16 about operating system-level, and whether or not it's clear, is it's a red
17 herring, frankly.

18 They've pointed to no inconsistencies within those statements.
19 And indeed, Dr. Wolfe has no problem applying those understandings, or
20 those, those different approaches in a way that's not inconsistent.

21 So, they've argued that there are differences, but they're all consistent
22 with one another.

23 JUDGE CHERRY: So how would you define it then?

1 MR. GOSSE: Each one of the examples that Dr. Martin provides is
2 part of a cohesive definition, Your Honor. Those are all examples of ways
3 that one could distinguish BIOS from operating system.

4 And frankly, it doesn't matter which one you pick, the result in this
5 case is the same. Which is why it's ultimately, Your Honor, not an
6 important point.

7 JUDGE CHERRY: So, I mean I guess I feel like we're reading this
8 limitation into the claim when it's not even met. I guess I just have a really
9 hard time when something's not mentioned at all in the specification of that
10 it was, wasn't important enough to mention in the specification but now
11 we're going to include it in the claim.

12 I guess why should we include something that's just not found
13 anywhere in the specification?

14 MR. GOSSE: First of all, Your Honor, respectfully disagree that it's
15 not disclosed in the specification. But secondly –

16 JUDGE CHERRY: Do you use the term operating system in your
17 specification?

18 MR. GOSSE: It's not there explicitly, Your Honor, as you've pointed
19 out and as we've agreed. But the context is clear that it has to be operating
20 system-level software.

21 The application programs run on operating systems. This is
22 terminology that would be understood to a person of skill in the art.

23 Now in the context of the prosecution history, the examiner's
24 statement of reasons for allowance came after the applicants agreed during
25 an interview, to amend Claim 18 to include the word agent.

1 Right, agent wasn't in what's now Claim 18 prior to that amendment.
2 And so, the earlier conversation between remarks from the applicants, when
3 they argue about –

4 JUDGE CHERRY: Which slide are we on, sir?

5 MR. GOSSE: I'm sorry, slide 16, Your Honor.

6 JUDGE CHERRY: Ok, thank you.

7 MR. GOSSE: Each of the arguments that are illustrated on slide 16
8 relates to the set-up step, right. And the agent of course, is part of the set-up
9 step. It's the thing that performs a set up step in the claims.

10 So, the invention allows the OS to interact with the BIOS, which is
11 why the applicant argued that there is no support whatsoever to write data to
12 the system BIOS, and also that the lack of the BIOS file system is further
13 evidence that the OS-level application programmers would not consider
14 BIOS as a storage medium.

15 When you're talking about storage, you're talking about writing
16 information that's part of the set-up step. Clearly relates to the agent,
17 whether the word agent is stated there or not.

18 And that's further reinforced by the fact that the examiner then
19 required the word agent to be added to Claim 18, before the allowance was
20 issued.

21 Stepping back further, Your Honor, the non-final office action to
22 which applicants were responding to, argued that Misra, the prior art that
23 was cited, disclosed an agent.

1 And so, applicants were responding to the examiner's argument that
2 the prior art disclosed claimed agent. That appears, Your Honor, at Exhibit
3 2,011, page ANCC143.

4 Petitioners pointed out that the word agent was added to the claim in
5 response to a 112-rejection issued by the examiner. I would point out, Your
6 Honor, that verification software, the thing that the Federal Circuit
7 discussed, was not the term that was added in response to that 112 rejection.

8 What agent was and more specifically, an agent that's writing into the
9 BIOS memory.

10 JUDGE CHERRY: So, the Federal Circuit got it wrong?

11 MR. GOSSE: No, the Federal Circuit was generally characterizing
12 the invention, Your Honor, not getting into specific claim terms.

13 Federal Circuit had it perfectly right in the context of the issues that it
14 was discussing. At issue in front of the Federal Circuit in that case, was the
15 meaning of the word program, and whether the program that's being selected
16 from memory needed to be an application program.

17 And the Federal Circuit said there's a difference between verifying
18 software, the thing that performs the invention as a whole, and the to-be-
19 verified software which the Federal Circuit characterized as that program.

20 So, the Federal Circuit had it right, but it didn't get into the details of
21 the claim terms, the language of the claims itself.

22 JUDGE CHERRY: So why can't, I guess I'm having trouble because
23 I'm, I mean how do you respond to his point that it, that what is required to
24 run at the OS-level is the verification software and not, that the agent doesn't
25 necessarily have to be at the OS-level.

1 I mean it seems like that is possible because it seems like if it is
2 talking about the verification software, which has to be at the OS-level and
3 then there could be this agent running at some lower level.

4 MR. GOSSE: As a matter of logic, Your Honor, the question is what
5 would the agent be if it's not operating system-level software in that context.

6 You could imagine it's BIOS software, but then that would require the
7 agent to run in the BIOS and interact with the operating system somehow.

8 And the applicants were crystal clear during prosecution that that's
9 not something that was known in the art.

10 So that would require then you have an operating system talking to a
11 BIOS level agent, which by applicant's own statements doesn't work.

12 As a matter of logic, the only place that the agent can run is at the
13 operating system-level, where it interacts with the operating system itself, as
14 a part of, or as software running on the operating system.

15 So, this argument about well, the verifying software could be one
16 thing and the agent could be something else, maybe I don't know something
17 in between.

18 It makes no sense as a matter of logic, because you still have to have
19 the operating system talking to an operating system-level software in order
20 for it to function. Per the applicant's own statements.

21 JUDGE DANG: Well, given that logic, wouldn't Hellman then be
22 having an agent at the OS-level, because it has to be running at the OS-
23 level?

1 MR. GOSSE: Your Honor, Hellman doesn't disclose either an
2 operating system or a BIOS. That's one thing. To get to, and further, it
3 doesn't disclose software operating as the Update Unit.

4 So those are two distinctions there and we'll talk more about Hellman
5 in a moment, if that's ok.

6 JUDGE DANG: Yes, and actually let me go back to the notice of
7 allowance while we're still there, if I could.

8 I guess if you read the whole paragraph in context, right, it said that
9 Misra and Ginter disclose operating system-level, and then the Ewertz
10 [system], I'm sorry for the pronunciation, is at the BIOS level.

11 And therefore, the reason why they allowed it was, or the examiner
12 allowed it because he said there's no interaction between OS-level and the
13 BIOS level.

14 And so, is that the first time the OS-level appeared? Is that because
15 they trying to distinguish from the prior art, and before that was there any
16 discussion of OS-level at all in the, your patent?

17 MR. GOSSE: It's certainly not the first discussion of it in the file
18 history, Your Honor. That language and the OS-level discussion that the
19 examiner had in the statement of reasons for allowance, parallel arguments
20 that the applicants made in their February 5, 2002, response to the office
21 action where they said, there's no motivation to combine yours with Misra's
22 OS-level –

23 JUDGE DANG: Right.

24 MR. GOSSE: - license generator.

25 JUDGE DANG: Right.

1 MR. GOSSE: So that's, that language comes through. And OS-level
2 is a way of characterizing again the operating system software that's
3 disclosed in the 941 Patent itself.

4 So as a first appearance of the term, it certainly comes up in
5 prosecution history. But as a concept, it was in the 941 Patent from the
6 beginning, as it would have been understood by the person of skill in the art.

7 JUDGE DANG: But I guess my question is, the reason why this all
8 came out is not because we're trying to distinguish agent, but we're trying to
9 basically say is that they were trying to, is this a motivation [to] combine
10 when you have two different levels. One in the OS-level and one in the
11 BIOS level.

12 Is that why they say well, we don't see interaction between and that's
13 why it's allowed versus I don't see an agent that's in the OS-level.

14 And that to, I'm not reading that in this notice of allowance as a
15 definition for agent.

16 MR. GOSSE: The question, Your Honor, is if it doesn't belong to the
17 agent, then where in the claim language does it belong? The examiner is
18 talking about agent at the bottom of that paragraph.

19 After providing this context for what the art discloses, what the art
20 doesn't disclose, and ultimately what's the difference. And he points to
21 using an agent at the bottom of the statement of reasons for allowance.

22 JUDGE DANG: Exactly, but he's not saying that the agent is an OS-
23 level, and I guess I'm sorry, then you're saying is it has to be at the OS-
24 level.

1 But it seems like from this sentence he said you don't have the
2 interaction and therefore, you need an agent set up in the verification
3 structure in the BIOS.

4 And I guess that's what he's --

5 JUDGE CHERRY: I guess -- I guess if there's no OS support
6 whatsoever to write data to the system BIOS, then how -- if the OS doesn't
7 support writing to the system BIOS, then how can you write to the system
8 BIOS?

9 So is your agent -- I mean, I guess where I'm kind of hung up, doesn't
10 the -- doesn't the OS have to support writing to it so that your agent can use
11 those APIs to access?

12 MR. GOSSE: Well, that's just it, Your Honor. Applicant's pointed
13 out that there are no operation system-level APIs that are capable of writing
14 to the BIOS.

15 What Applicants had invented was software that could do that. The
16 concept was unfamiliar to typical software engineers at the time.

17 And obviously the invention was relatively simple in hindsight, Your
18 Honor. But it's the simple inventions that --

19 JUDGE CHERRY: Well, I guess, I mean the problem is that you
20 don't disclose any of that.

21 So we're kind of -- I mean, if he developed a way to support writing
22 to BIOS, where is that disclosed?

23 So you're using -- I mean, you talk about EEPROM -- EEPROM, you
24 know, commands.

1 So are you – I mean, I guess – I guess if the OS doesn't have an API
2 to call to do that, so you're adding APIs, is that it?

3 I mean, I guess – I guess part of the problem is that your disclosure
4 doesn't – you kind of added this term that you don't talk about, and now
5 you're saying it's the key thing.

6 MR. GOSSE: Your Honor, the EEPROM manipulation commands
7 are there.

8 The details of those may be a little bit vague, but the idea is ultimately
9 writing a -- you're writing a direct memory access, a means of accessing that
10 memory directly, without the use of an API, without the use of ordinary
11 operating system resources and using that to then manipulate the memory of
12 the BIOS.

13 JUDGE CHERRY: But it is not using OS resources. Isn't it running
14 kind of outside the OS? Is it running on a different level?

15 MR. GOSSE: Not necessarily, Your Honor. There's means for
16 writing directly into the memory.

17 If you have a memory address, you write directly to that memory
18 address. Knowing of course where to do that within the BIOS is a
19 complicated thing, as the patent points out.

20 Messing that up has dramatic consequences when you're in the
21 context of the BIOS. Which is why it ordinarily wasn't done in the prior art.

22 So EEPROM manipulation commands is adequate to disclose that
23 concept to a person of skill in the art.

24 JUDGE CHERRY: I mean, I guess – I guess there's a huge tension in
25 what you just said, that you know, the fact that these commands exist.

1 But then you're also hedging it with, oh, well, this is so difficult to do
2 because you could easily cause terrible problems for the – for the computer
3 if you're directly into the BIOS. And you could, you know, overwrite
4 things.

5 So I mean I guess where is the disclosure that, you know, how to do
6 that to avoid these problems if these are big problems.

7 MR. GOSSE: Your Honor, it's discussed at a high level. And a
8 person of skill in the art would rely on that to develop the corresponding
9 software, which is all that's required as a matter of enablement, which is not
10 before us here today.

11 JUDGE CHERRY: But I mean, I guess – I mean, my point is that a lot
12 of this enablement problem we're discussing can be avoided if we avoid
13 writing – reading in this limitation into the claim, right?

14 MR. GOSSE: Your Honor, it's clear that the Examiner allowed the
15 claims on the basis of distinguishing between operating system-level and
16 BIOS-level interaction.

17 And that distinction applies to the claimed agent, which is the
18 limitation that is responsible for setting up the verification structure in the
19 memory of the BIOS.

20 JUDGE CHERRY: I mean, I guess I'm – okay, let's set that aside.

21 But now let's talk about the software requirement. Why – where does
22 – where is the support that this can only be software?

23 I mean, it seems like at some level, the distinction is, you know,
24 artificial. I mean, you can – I can have a, you know, a software that, you
25 know, decodes like an mpeg.

1 Or I can have, you know, circuits built into my microprocessor that do
2 some of that decoding, right.

3 And they're equivalent. So why – why does it have to be – why
4 software only? Why can't there be a hardware component to this agent?

5 MR. GOSSE: The understanding in the art claimed, meaning it was
6 clear to the person of skill in the art, was that an agent is either a software
7 program or a routine that is available to run logic, right. And so –

8 JUDGE CHERRY: But why can't some of that logic be hardwired as
9 a circuit into the microprocessor?

10 MR. GOSSE: Because that's not what an agent is, Your Honor.

11 JUDGE CHERRY: Where is the support for that?

12 MR. GOSSE: Each of the dictionary definitions, Your Honor, that are
13 cited. Slide 20 lays those out. I'm not sure why the screen's flickering, Your
14 Honor.

15 An agent is a program which with a certain degree of autonomy
16 performs tasks on behalf of a user or an application. That requires software
17 performing that task.

18 JUDGE CHERRY: Or requires a program, right? It doesn't say
19 where that program is – whether that program cannot include some software
20 component or hardware component.

21 MR. GOSSE: Well, certainly a program would be understood to run
22 on hardware, Your Honor. But that's – that's not what an agent is
23 understood to do, to be.

1 A program that performs a background task is lying in wait waiting
2 for a call from some of other part of the computer, the operating system in
3 the computer.

4 The client server applications, it's a process that mediates certain
5 things.

6 Each of these relates to functions that are performed at a much higher
7 level than a hardware-only or hardware-specific operation.

8 So the requirement of an agent, Your Honor, would be understood to
9 be logic is performed in the software itself as opposed to a hardware-assisted
10 or hardware-implemented solution.

11 JUDGE CHERRY: And how – what about your infringement
12 allegation against Nintendo that its OTA, over-the-air, servers are the claimed
13 agent?

14 MR. GOSSE: Your Honor, the infringement contentions are perhaps
15 ambiguous to the extent that they don't explicitly call out the software that
16 runs on those servers.

17 JUDGE CHERRY: So you're saying the software that runs on the
18 servers is the agent?

19 It's not – so that's – that's not even – I mean, that's not even within
20 the – I mean, if we're going to talk about OS level, that seems like at a
21 network level, right? Not something that's running at –

22 MR. GOSSE: Your Honor, the challenge when you're drafting
23 infringement contentions is always what's available publicly versus what
24 you can find through discovery.

1 And the challenge of course at the early stage of the case where those
2 infringement contentions are drafted is identifying something clearly enough
3 so that the infringement in the allegation can be understood by the
4 defendants.

5 And the information that's publicly available, likely we might steal its
6 OTA servers. And that's why that's the level that those contentions are
7 drafted at.

8 JUDGE CHERRY: So you're saying software running – so it's not on
9 the – so it doesn't have to be some sort of agent – sorry.

10 To say that software doesn't have to run on the device, it can be on
11 another device, the agent software?

12 MR. GOSSE: Your Honor, we don't have –

13 JUDGE CHERRY: If it's running on a server that's a different device
14 than the device, right, that's running the software?

15 MR. GOSSE: Your Honor, I'm not certain exactly what the – what
16 the architecture looks like in that case, whether – whether a -- over-the-air
17 servers are the device itself or something else. So, I'm sorry, might have to
18 look at that information and get back to you.

19 JUDGE CHERRY: But at that level there's – I mean, the – so we
20 agree that the software has to run on a device.

21 So figure – I guess – I guess what is the point of this software-only
22 distinction? Because what is it, Hellman has something that fit the circuit
23 that's running?

24 Can you explain to me why is that important to the combination?

1 MR. GOSSE: Well, Hellman is disclosing the hardware-implemented
2 devices designed to be tamper-resistant, that's its purpose.

3 Hellman explains, it's got two or three columns' worth of information
4 that talk about various encryption software technologies.

5 And yet, ultimately Hellman clearly discloses wires, physical
6 switches, epoxy, various ways of protecting hardware components from
7 tampering by a malicious user.

8 And the fact of the matter is that's not the same kind of software
9 program or routine that's required by the agent.

10 Does that answer your question, Your Honor?

11 JUDGE CHERRY: I mean, I guess because the – your opponent, he
12 described how Hellman has – yes, it Hellman has those embodiments, but it
13 also has this embodiment where there's this, the software was a 36 that runs
14 – that's managing these M-values, right.

15 MR. GOSSE: The Update Unit 36.

16 JUDGE CHERRY: Update Unit 36.

17 MR. GOSSE: Is receiving signals from other devices within the Base
18 Unit 12. And that uses those signals then to write to a specific address,
19 which is the hash value.

20 So the hash value is a random number. It defines the address that is
21 being used to store the value M.

22 JUDGE CHERRY: Okay.

23 MR. GOSSE: And hash value H, M, those are provided as signals
24 from another device within Hellman's base unit.

1 And then they define the information that then gets stored into the
2 EEPROM.

3 So you have signals coming in, and they're being used to access the
4 hardware component.

5 JUDGE CHERRY: If the thing that's accessing it, right, is a kind of
6 software.

7 MR. GOSSE: It's not disclosed as software, Your Honor. It's
8 disclosed as a device.

9 JUDGE CHERRY: So you're saying a person of ordinary skill in
10 1998 couldn't have implemented that in hard- and software?

11 MR. GOSSE: It's not that they couldn't, Your Honor, and this is the
12 fundamentally important point. Dr. Wolfe makes a lot of statements about
13 what could have been done. The question is what would have been done.

14 And in the context of a tamper-resistant device such as Hellman,
15 Schneck has the same disclosure where hardware is used to protect the
16 circuitry inside the device and prevent tampering.

17 And that hardware-implemented, tamper-resistant design would
18 instruct the person of skill in the art to use – to avoid using software to
19 replicate those functions.

20 So that's the fundamental crux of the obviousness argument, is that
21 you have to have the motivation under KSR to combine these elements.

22 You have to reason that the person of skill in the art would have done
23 it.

1 The best the Petitioners and their expert have pointed to is a series of
2 it could have done at this way. It would have been at the discretion of the
3 implementer.

4 They have the one example, Your Honor –
5 JUDGE CHERRY: Well, but they point to Chou. Doesn't Chou
6 provide us a motivation? Is that there's certain avenues to store these things,
7 and –

8 MR. GOSSE: Your Honor, Chou is disclosing not a tamper
9 prevention device, but rather a theft prevention device, right.

10 You're preventing someone from logging onto their computer and
11 starting the operating system through the use of this files routine.

12 Chou discloses there's effectively a narrow convention that takes what
13 used to be stored on CMOS device, which you could delete the contents of
14 that CMOS device by removing power from it, thereby deleting the
15 passwords that were stored on that device and circumventing the theft
16 prevention function of this BIOS routine.

17 Chou says, well, we'll replace that CMOS device with an EEPROM.
18 And the EEPROM happens to be re-rewritable, it happens to be non-volatile.

19
20 So that if you pull power from that chip, unlike the CMOS device, it
21 will retain the passwords that are stored on it.

22 And if those passwords are there and you enter the wrong password,
23 you can't start the operating system on the computer. That's what Chou is
24 disclosing.

1 It doesn't disclose tamper prevention in the same way that Hellman or
2 Schneck is disclosing tamper prevention.

3 JUDGE FLAX: Well, if Chou has a system set up where passwords
4 in the password system are stored using the BIOS, how does it get it there?
5 How does it set up that structure?

6 Wouldn't it have to use an agent to get it set up?

7 MR. GOSSE: No, Your Honor. Chou discloses a routine within the
8 BIOS. It has an administrative function within the BIOS routine itself.

9 JUDGE FLAX: It wasn't born there, right. I mean, someone put it
10 there.

11 So wouldn't that be an agent putting it there and then setting up the
12 verification structure of the passwords?

13 For example, Chou – or Column 6 seems to talk about the process of
14 creating the security function as a part of the contents of the virus memory.

15 Is that not an agent doing that?

16 MR. GOSSE: Your Honor, at best, Chou is disclosing storing
17 passwords to particular locations that pre-designated in the BIOS memory.

18 It's not setting up a verification structure, it's storing information, a
19 license record at best, into the memory.

20 So the agent itself is not performing the setting up of any verification
21 structures.

22 JUDGE FLAX: So there's just raw data in Chou's BIOS memory
23 without any sort of a structure for its use?

24 MR. GOSSE: Chou discloses a particular location for those
25 passwords. If you look at, I think it's – I've forgotten now which figure it is.

1 JUDGE FLAX: What Column 6 says is that the BIOS memory is
2 prepared by storing within the routines illustrated in Figure 3.

3 So if it's doing that, is that not an agent setting up a verification
4 system of some sort which if you transferred that same idea over to Hellman,
5 you'd be doing the same thing with license?

6 MR. GOSSE: Well, to be clear, Petitioner's contention is that you
7 would use Hellman's update unit as the claimed agent.

8 So this is a discussion outside of what the Petitioners have argued.

9 JUDGE FLAX: Well, that would be sort of the same – the same
10 components, let's call them, of the system, right.

11 Chou has one – has components of its system that gets the data in
12 there, gets the system in the BIOS.

13 Hellman also has some sort of way of getting into the – to its secured
14 non-volatile portion of its system. Is that not an agent?

15 MR. GOSSE: No, Your Honor, it's not an agent, it's a piece of the
16 BIOS routine that performs this administrative function.

17 It's part of the BIOS itself. It's certainly not an operating system-
18 level software that's interacting with the BIOS.

19 Your Honor, just touching on a couple of other rebuttal points, with
20 respect to Dr. Wolfe's testimony, Petitioners cited a number of statements
21 that Dr. Wolfe made.

22 Dr. Wolfe conceded that Hellman does not disclose how the Update
23 Unit 36 is implemented. According to him, Hellman was completely silent.

24 And rather than relying on that – rather than looking to the context of
25 what is actually disclosed, as Dr. Martin did, Dr. Wolfe is now saying, well,

1 it would have been obvious to implement Hellman, Hellman's Update Unit
2 36 as software.

3 Ultimately, Your Honor, Petitioners have completely reworked
4 Hellman, as is illustrated on Slide 35.

5 They've replaced Hellman's EEPROM with a BIOS. The only reason
6 that they offer for doing that is that EEPROM would have been one – a few
7 locations where you could put such information as BIOS.

8 Dr. Wolfe admitted, however, that it was not common to have a large
9 number of EEPROMs. That's not a motivation, Your Honor.

10 Rather, he conceded that it was common to have multiple EEPROMs
11 in a computer, even in 1998 at the time of the invention.

12 Petitioners' argument was that it would not be obvious to have a large
13 number for – it would be unlikely to have large number. But that's not what
14 Dr. Wolfe testified.

15 Dr. Wolfe testified in his deposition -- Exhibit 2026 on page 40, line
16 16 through page 41, line 4 – that there were lots of ordinary computers that
17 did have multiple BIOS modules.

18 Further, Your Honor, reducing costs in a device, such as Hellman,
19 who had only found one factor that a person of skill in the art would have
20 considered, has noted, Hellman and Schneck.

21 And you have other, the other prior art references talk about added
22 hardware as a means to provide additional security.

23 Dr. Wolfe does not consider that context to the 941 Patent when he
24 focuses exclusively on costs.

1 With respect to paragraph 137A of Dr. Wolfe's declaration, cited by
2 Petitioner, the discretion of the inventor was ultimately what Dr. Wolfe
3 concludes would be the motivating factor in paragraph 137A.

4 The discretion of the inventor doesn't get us to a motivation to
5 actually make the changes that he's discussing.

6 Similarly, in paragraph 137B, Your Honor, allowing a provider to
7 change the implementation logic ignores the teachings in Hellman and
8 Schneck that require specific hardware for tamper prevention.

9 Your Honor, I see that I'm out of time. I'll reserve the rest for
10 rebuttal.

11 JUDGE DANG: Great, thank you so much.

12 Okay, Mr. Canavera, you have ten minutes. You can begin any time.

13 MR. CANAVERA: Thank you, Your Honor.

14 I'd like to address a few points just raised. Just a few towards the end,
15 since they're freshest.

16 In course, Counsel referred to Dr. Wolfe's testimony that there could
17 be multiple BIOS modules in a computer as of 1998.

18 But multiple BIOS modules are still BIOS, they're still BIOS
19 memory.

20 So whether it's in one BIOS memory or another, that would not affect
21 the claims.

22 So Dr. Wolfe's testimony does not undermine his opinions in the
23 least.

24 In course, Counsel, in response to some questions about the Chou
25 reference and whether it has something sort of analogous to an agent that

1 Hellman has, explained that – or said that the writing to the BIOS memory
2 was done as part of the BIOS routines.

3 But as shown -- that was in Slide 38 of Patent Owner – but that – and
4 showing Figure 10 – there are separate blocks in the flow diagram for the
5 BIOS routines.

6 Everything that's writing the passwords, the administrative function,
7 and the security routines, that's extra stuff that Chou added. That's not from
8 the pre-existent BIOS.

9 And so I think consistent with Your Honors' questions, that is
10 something that – something extra added by Chou itself.

11 JUDGE DANG: Even if that doesn't work, if you tell us the slide
12 number, we'll be able to get there.

13 MR. CANAVERA: Thank you. Ancora has also critiqued Dr.
14 Wolfe's opinions for – on the issue of software implementation of Update
15 Unit 36 as only discussing what could have been done and not would have
16 been done.

17 To start, I'll note that the question is not what would have been done
18 but what would have been obvious.

19 But Dr. Wolfe's key opinions on this in the original declaration,
20 shown on Slides 42 and 43 of our demonstratives, are would have, a person
21 of ordinary skill in the art would have understood this on Slide 43.

22 A person of ordinary skill in the art would have been motivated. These
23 are not simple could have statements of possibility.

24 Patent Owner has pointed to Hellman's reference to hardware
25 elements, glue, and switches.

1 As Dr. Wolfe explained in his reply declaration, every computer has
2 switches and glue.

3 The fact that Hellman's base unit has hardware features is not
4 surprising. It's does not make its Update Unit 36 strictly hardware.

5 To answer one question about the infringement allegations, those are
6 shown in Exhibit 1076. We excerpted part of that previously.

7 If Your Honors are interested, that is the complaint. It does show that
8 the computer in the claims is a Nintendo SWITCH or some other gaming
9 consul, not the server which are pointed to as the agent.

10 There was further discussion on the issue of the software and this
11 distinction between the agent being software-only and maybe using
12 hardware.

13 We think this was shown, this was sort of an arbitrary line drawing
14 exercise. And this is shown more clearly in the deposition of Ancora's
15 expert.

16 We discuss that and cite it at the top of page 17 in our reply. But
17 effectively the way it played out was Ancora's expert said, well, the agent
18 must be software only.

19 And when asked, well, could it run – could it run on hardware, he
20 said, well, yes, but you have to look at just the agent part. I would exclude
21 the hardware part.

22 It is a -- I choose to look at the software part because I choose to look
23 at the software part. An agent clearly could also have hardware.

24 And I think that shows that they're not drawing a distinction based on
25 the art but drawing a distinction to get past the prior art.

1 JUDGE DANG: Mr. Canavera, what about Patent Owner's question
2 that the reason why you would have software versus hardware, or I'm sorry,
3 hardware versus software because of you don't want tampering or whatever.

4 And the purpose for Chou is not the tampering. And but it is for anti-
5 theft.

6 So therefore, that's why you would want software – or hardware so
7 that there's no tampering.

8 But then for Chou it's for theft, which is not necessarily for
9 tampering.

10 MR. CANAVERA: Yeah, Your Honor, I think Patent Owner is
11 reading Chou a little too narrowly. Chou is – the end goal is to prevent theft.

12
13 But the intermediate is to prevent tampering with the data this is used
14 to prevent unauthorized access to the computer.

15 JUDGE DANG: Well, Chou does – the purpose of Chou is to prevent
16 tampering?

17 MR. CANAVERA: That is the teaching of Chou. In the bottom of
18 Column 1, top of Column 2 is – it's not tampering, it's to prevent altering of
19 the sensitive data that's stored.

20 There is happens to be passwords, but the teaching is if you put those
21 passwords in the BIOS memory, a user can't just wipe those out, delete
22 those, or otherwise modify them.

23 Dr. Wolfe explained that in his opening declaration that as – that
24 understanding to a person of skill in the art is that if I put it in the BIOS
25 memory, it's harder for someone to manipulate it.

1 But the tampering goal is Hellman's goal. Hellman is the one fixated
2 on avoiding tampering with license records. The secondary distribution is
3 what he calls the problem.

4 It's I buy a copy legally, and then I give to other computers, the other
5 users.

6 JUDGE DANG: Yeah, but I guess I'm still fixated on the motivation
7 to combine. We want, I thought the reason you want to combine it, put it
8 into files so that it be – not be tampered with.

9 And if that's not what Chou is teaching, but rather Hellman, then I
10 would have a problem with that.

11 MR. CANAVERA: Well, Your Honor, that is what Chou's teaching.

12 JUDGE DANG: Okay.

13 MR. CANAVERA: It's teaching –

14 JUDGE CHERRY: So you're saying that overall, there's a distinction
15 that maybe the overall purpose of Chou is to prevent theft. But it gets there
16 by having this tamper-proof data.

17 So and then you're just saying there is really no teaching about how to
18 prevent tampering and how to use this to do theft, but I'm going to combine
19 it here with Hellman. It's also dealing with tampering.

20 MR. CANAVERA: That's absolutely right, Your Honor. It's – Chou
21 says I want to avoid people tampering with my sensitive data in your
22 passwords. Because if they do, they'll steal my computer.

23 Hellman says I want to avoid people tampering with my sensitive
24 data, the license records. Because if they do, they'll use a program without
25 paying for it. It's the same means to different end goals.

1 And I think in a general sense, that is the same goal. We're talking
2 about stealing a computer, but it's still – the goal is to control access to
3 software by avoiding tampering with the data.

4 The software in Hellman is the software package 17, in Chou it's the
5 operating of the computer.

6 I'd just like to highlight that on the issue of this OS-level distinction, I
7 think Counsel described the agent as described at a high level.

8 But we have to contrast that with it's described at a high level but now
9 seeking to have a disclaimer and negative limitation.

10 We don't think the specification supports that or the file history.

11 As far as the E²PROM manipulation commands at the top of Column 2,
12 our understanding was that maybe they'd argue that is the agent. Sounds
13 like maybe they're arguing that's something used by the agent.

14 But in the end, if it has any relation to an agent, it's – the best thing it
15 is, is an example. An example cannot provide disclaimer. It cannot provide
16 support for this negative limitation.

17 Even if that were an agent, it just doesn't support their two narrowing
18 constructions.

19 If Your Honors don't have any other questions, I'll summarize.

20 JUDGE FLAX: Do we have evidence of the lead up to agent
21 language being added to the claims by amendment and why it was added.

22 What happened during that interview that your opposing counsel
23 mentioned? Why did they think that there was a disclaimer based upon the
24 interactions with the Examiner?

1 MR. CANAVERA: Your Honor, the short answer is we have some
2 insight. As with a lot of interview-based prosecutions, it's a bit of black
3 magic what exactly happened there.

4 I can point Your Honors to what we do know. So on Slide 23 of our
5 demonstratives, the thing I want to point out is that agent wasn't added in the
6 – in the application – pardon me, in the Office action they are now pointing
7 to as disclaimer.

8 It was added previously. They're pointing to the April 5, I think 2022,
9 Office action as establishing their arguments for disclaimer. That would be
10 on slide 25, so February 5, 2022. Slide 24.

11 But Slide 23 is when they added agent. They added that previously.

12 And as you can see on the left hand slide – left hand side of the slide,
13 the examiner had presented an enablement rejection and said you're
14 claiming to write to EEPROM, but how do you do that?

15 JUDGE FLAX: Okay, and so then there was a rejection over art, over
16 that term.

17 MR. CANAVERA: Then there was this Office action, shown on the
18 right hand side of Slide 23. Then there was an Office action.

19 JUDGE FLAX: What was the agent in the prior art at that point that
20 they overcame?

21 MR. CANAVERA: The agent, it was pointed to, I think it was the
22 Mistra base reference as some sort of routine, but I don't recall what it was
23 exactly.

1 But the reason the Examiner eventually allowed it over that was in the
2 Notice of Allowance was that this sort of two roles then that how do you
3 write to the BIOS memory.

4 And it seems, we don't know from the interview exactly what
5 happened, but it seems that the Examiner was convinced that, you know,
6 being able to write to BIOS, to this special type of EEPROM memory, was
7 something different than those.

8 But Hellman has that, Hellman has an Updated Unit 36 that exists just
9 to write to EEPROM.

10 So if that's what the agent is, Hellman has the.

11 JUDGE DANG: Well, going back to the examiner Notice of
12 Allowance. The examiners had the problem with the program being in OS,
13 and then interacting with the BIOS level, right.

14 And so I guess I was going to go back to the combination where
15 Hellman is – so when you say okay, we put the verification in the BIOS.

16 Are you proposing that the program itself is still going to be in OS
17 level and therefore how is that going to be different than the reason why the
18 examiner did not like the combination in the prior art?

19 MR. CANAVERA: I think the short answer to that is that in the
20 combination, the agent, the software package, all of those are OS-level as
21 Ancora has characterized it.

22 But more to the point, maybe, what's missing – what was supposedly
23 missing in the prior art was this ability to connect the two worlds relates to
24 the ability to write to the EEPROM.

25 JUDGE DANG: Right, correct.

1 MR. CANAVERA: It sounds like today, Ancora's saying, well, the
2 solution was EEPROM manipulation commands. That's the only thing I can
3 point to is solving that problem.

4 But again, Hellman already had that. It was already writing to
5 EEPROM Updated Unit 36.

6 Chou was writing to it with different software.

7 There's nothing in the patent that would suggest that there's
8 something harder to write to about BIOS EEPROM than other EEPROM.

9 The patent, again, at most has the solution is EEPROM manipulation
10 commands.

11 But Hellman has that. Hellman, that's the whole point in Hellman is
12 to write to that memory structure license value.

13 JUDGE DANG: But if you are proposing that the EEPROM is a
14 BIOS EEPROM, and then the program – are you – you're saying it could be
15 both OS or BIOS, the program, right, or?

16 MR. CANAVERA: Do you mean the program in the claims?

17 JUDGE DANG: Yes, the program that's being verified.

18 MR. CANAVERA: Well, in Hellman at Software Package 17 I think
19 – well, the Federal Circuit has told us it can be an application program, it can
20 be an operating system program.

21 I don't think it's been reached, but I don't think it would make sense
22 for that to be a BIOS program. That would just be somehow circular.

23 JUDGE DANG: Right, so – so does Hellman then? I mean, I guess I
24 – where is Hellman saying what the prior art in the Notice of Allowance is –
25 is trying to say is missing.

1 That the art is lacking, is that you are trying to – if it is an OS
2 program, OS-level program, and you are putting the verification in the BIOS
3 because it's obvious to have BIOS.

4 Then you're still having an interaction between OS and BIOS.

5 MR. CANAVERA: Understood. I believe I understand. And I would
6 answer it this way. We addressed in the reply and in the declaration with it
7 that a person of skill in the art reads Hellman and understands the Software
8 Package 17 is an OS-level program.

9 And we describe various reasons why, it's a computer program, it runs
10 on a CPU. Dr. Wolfe explained various reasons.

11 Importantly, though, that was the same way that Dr. Martin, Ancora's
12 expert, found the OS in the 941 Patent.

13 It's, by implication, it's by – it's the sort of thing a person of skill in
14 the art understands to be an OS-level program.

15 And this ties in with this sort of dance on what OS level means. If OS
16 level isn't anything other than BIOS that Software Program 17 is definitely
17 not BIOS.

18 Your Honors will see in the description of Hellman that it's something
19 you can buy while the computer's running.

20 If it were BIOS, the computer wouldn't – it wouldn't work. It can be
21 bought and purchased over the internet, received from the server.

22 The Software Package 17 is some sort of OS-level program.

23 We don't think the agent has to be OS-level, but to the extent Your
24 Honor reads the Notice of Allowance, sees a distinction about storing license

1 records at BIOS memory for something that is at the OS-level of the
2 program, Hellman has that with its Software Package 17.

3 JUDGE CHERRY: So is there – I think what – I think what the issue
4 is, is there some distinction between just an EEPROM as disclosed in
5 Hellman and the EEPROM of a BIOS.

6 I mean, is there some distinction where the OS can't access that, is
7 that what the point is? That they're saying that basically you can't – I mean,
8 I guess it just seems like it's an EEPROM on the computer, so.

9 MR. CANAVERA: The answer to that is there is a distinction that
10 hasn't – not been explained to us, either in the specification or anywhere
11 else. It seems to just be in EEPROM.

12 JUDGE DANG: Well, thank you very much, your time is up.

13 Mr. Gosse, you have ten minutes and you can begin any time. Thank
14 you.

15 MR. GOSSE: Thank you, Your Honor.

16 Just a few quick points. Obviously Petitioners' Counsel touched on
17 quite a few issues. I'm going to be selective in the ones that I address.

18 Ancora's briefing addresses all of those points, and we'll certainly
19 rely on our briefing for the majority of them.

20 With respect to the distinction between the operation system and the
21 BIOS and what's operating system versus what's BIOS, the response at four
22 included a discussion of that in the context of Hellman.

23 And it cited Dr. Martin's declaration, Exhibit 2018 at paragraph 62,
24 which further cited a dictionary definition of BIOS, which talks about the
25 fact that BIOS and operating system are different things.

1 And that it would be understood that the operating system is incapable
2 of communicating with the BIOS. And that's a dictionary that comes from
3 the time before the invention or the time of the invention.

4 With respect to this idea that every computer has wires and hardware
5 components, the particular implementation of Hellman is the thing that's at
6 issue here.

7 And Hellman discloses a certain set of wires, a certain set of hardware
8 devices, switches, the hardware-implemented Update Unit.

9 So this idea that every computer has wires is really a red herring. It's
10 not getting to what Hellman actually discloses and whether those wires have
11 particular purpose in the context of Hellman's disclosure.

12 The other issue, Your Honors, is with respect to the indicia of an
13 operating system present in the 941 Patent versus what Dr. Wolfe's
14 testimony relates to in the context of Hellman.

15 Dr. Wolfe argues that operating system would have been apparent in
16 Hellman based on what he says are the same sorts of indicia as what's
17 disclosed in the 941 Patent.

18 But the context of the 941 Patent provided Dr. Martin considerably
19 more supporting evidence.

20 It included the application software, the Lotus 1-2-3 software running
21 on what would have to be an operating system based on the knowledge of a
22 person of skill in the art.

23 So Dr. Wolfe's testimony about allegedly having the same sorts of
24 indicia is really reading quite a bit into Hellman that simply isn't there.

1 Hellman does not disclose any sort of application software or anything
2 of that sort running on an operating system.

3 Your Honor, Petitioners' Counsel talked about the specification not
4 containing a disclaimer. And that's simply not required by the law.

5 The Federal Circuit has made clear on more than one occasion that
6 disclaimer in the prosecution history by itself is enough to establish a
7 particular meaning of a claim term.

8 And that disclaimer does not need to be explicit, all right. The Kaken
9 Pharmaceutical case is but one example of that where there was actually an
10 express definition within the specification.

11 The PTAB adopted a narrow claim instruction based on that express
12 definition.

13 Federal Circuit on review said you need to look at the file history
14 where the applicant made arguments that were inconsistent with that
15 specification with the definition that appeared in the specification.

16 And those arguments controlled ultimately the proper claim
17 instruction in that case.

18 So that case is very instructive with respect to whether or not the
19 disclaimer needs to be in the specification itself, and it obviously does not.

20 JUDGE FLAX: So where in the prosecution is the disclaimer? Are
21 we missing part of the Office action response that would have had that
22 explanation?

23 MR. GOSSE: There is a page missing.

24 JUDGE FLAX: Is that the page that matters?

1 MR. GOSSE: I couldn't tell Your Honor. I haven't seen it. If I had,
2 it would obviously be in the evidence, but is not.

3 And the overall context does make clear what the understanding was,
4 which was that from the very outset, applicants were arguing that the
5 distinction between the invention and the prior art related to writing the
6 verification structure to the memory –

7 JUDGE FLAX: See, that's a good point you just made. You
8 mentioned the word clear.

9 In a disclaimer it has to be clear and unequivocal, if I'm remembering
10 what the Federal Circuit has to say.

11 I think you've got to point me towards where it's clear. I get your
12 context reference; let's look at the prosecution history as a whole,

13 Why is it clear?

14 MR. GOSSE: Well, the examiner's statement on reasons for
15 allowance is clear on its own.

16 Using an agent was the distinction that mattered in the eyes of
17 examiner.

18 And that was based on right within that same statement he talks about
19 operating systems don't interact with the BIOS, and that's the known state of
20 the art.

21 And that statement in turn was based on what the applicant said – said
22 in the prior Office action response.

23 The examiner required adding the word agent to Claim 18.

24 The prior round of Office action and response did require, it was a 112
25 rejection. That is where the applicants added the word agent.

1 But again, they did not add the word verifying software. So that's not
2 the language that's at issue.

3 There was language added that included the agents.

4 Further, Your Honor, going all the way back to the very first response
5 to an Office action, Exhibit 1 – 2011, Your Honor, pages Ancora 87-102.

6 The applicants argued specifically at pages 93 and 96 that the art that
7 was cited, again, Turner and Goldwin at the time, did not disclose any sort of
8 setting up of the verification structure.

9 That teed up the issue that then prompted the examiner to issue the
10 112 rejection, because the examiner said there's no disclosure in the claim.
11 There's no language that differentiates the program from the thing that sets
12 up the verification structure.

13 And then that's what prompted the applicants to amend to include the
14 word agent just to explain this is the structure that performs that verification
15 – I'm sorry, the setting up of the verification structure.

16 JUDGE FLAX: When the examiner rejected that new claim with
17 agent in it over Mistra in combination and said that Mistra disclosed using
18 an agent to set up a verification structure, what – do you know what that was
19 in the prior art?

20 MR. GOSSE: The examiner pointed, and it's in the record, Your
21 Honor, Exhibit 2011, page Ancora ANCC 143. The examiner pointed at a
22 series of cites from Mistra itself.

23 But ultimately when you look at what those cites point to is, is
24 Mistra's license generator, which was software that was generating the
25 license.

1 JUDGE FLAX: Okay.

2 MR. GOSSE: So ultimately even though that was part of an operation
3 system level software, it was a license generator within Mistra's operating
4 system or running on the operating system.

5 The examiner ultimately allowed the claims over Mistra, and that
6 disclosure of what the examiner had said was an agent, because that agent
7 that Mistra disclosed was incapable of communicating with the BIOS.

8 And that's exactly the same situation that we have with respect to
9 Hellman and Chou.

10 Hellman is absolutely silent with respect to operating system or BIOS.
11 It has no disclosure whatsoever of operating system communicating with a
12 BIOS in interacting with a BIOS. And –

13 JUDGE CHERRY: It does teach how to communicate with an
14 EEPROM, right?

15 MR. GOSSE: Hellman includes an Update Unit that communicates
16 with an EEPROM, yes, Your Honor.

17 But that EEPROM, well, I'm sorry, the Update Unit itself is not
18 disclosed as being operating system software.

19 It could very well be BIOS software if we assume that Hellman had a
20 BIOS. There's no disclosure whatsoever.

21 If that Update Unit was software, which it isn't, of where that Update
22 Unit 36 would have run. The only argument that Petitioners –

23 JUDGE CHERRY: Well, are we saving to – if it's saving to the
24 EEPROM, if it's saving data, right, it has to have some software element,
25 right?

1 MR. GOSSE: Not necessarily, Your Honor. As you pointed out
2 earlier, hardware is capable of many functions.

3 In the context of Hellman, where we've got a hardware-implemented,
4 tamper-resistant system, there's no reason to assume that software would
5 have been required.

6 And further, Your Honor, the point of the 941 Patent disclosed
7 purposely the invention was to avoid having additional hardware. You have
8 to add to the device to provide these security functions.

9 The use of BIOS took advantage of hardware that was existing on
10 many computer systems.

11 So writing to a separate EEPROM would be antithetical to that
12 purpose and would require the additional of a new device.

13 Your Honor, in view of the prior art history that – the prosecution
14 history, the proposed combination is directly analogous to the art that the
15 applications – applicants overcame.

16 Hellman and Chou, either single or collectively, do not teach an agent
17 running at the operating system level interacting with the program
18 verification structure stored on the BIOS.

19 And for that reason alone, the claims are not obvious, Your Honors.

20 JUDGE DANG: Thank you very much.

21 We're going to go offline. And we ask the public to leave. And we
22 will need to disconnect our phone lines.

23 (Whereupon, the above-entitled matter went off the record at 1:48
24 p.m. and resumed at 1:49 p.m.)

■ [REDACTED]

A series of horizontal black bars of varying lengths, representing redacted text. The bars are arranged in a list-like fashion, with some bars being longer than others, suggesting different levels of redaction or different types of information being withheld. The bars are solid black and have sharp edges, indicating they are digital redactions.

A horizontal bar chart consisting of 20 rows. Each row contains a single black bar. The bars are arranged in a staggered, descending pattern from left to right. The longest bar is in the 10th row, and the shortest bar is in the 19th row. The bars are arranged in a descending pattern from left to right, with the longest bar in the 10th row and the shortest in the 19th row.

A horizontal bar chart consisting of 20 rows. Each row contains a single black bar. The bars are arranged in a descending, staggered pattern from top-left to bottom-right. The lengths of the bars vary, with some being significantly longer than others. The bars are positioned such that they appear to be part of a larger, continuous sequence, with each bar starting at a slightly different horizontal position and ending at a different horizontal position, creating a sense of movement or progression.

Row	Bar Length (approx. % of total width)
1	95
2	75
3	98
4	50
5	55
6	100
7	95
8	65
9	100
10	25
11	85
12	98
13	15
14	100
15	80
16	90
17	68
18	98
19	60
20	75
21	95
22	100
23	55

[illegible]

[illegible]

[illegible]

Row	Bar Length (approx. % of total width)
1	95
2	98
3	10
4	100
5	10
6	98
7	35
8	95
9	25
10	98
11	75
12	98
13	98
14	98
15	98
16	55
17	100
18	45
19	98
20	50
21	98
22	85
23	98
24	65
25	98

The image consists of approximately 20 horizontal black bars stacked vertically. The bars vary significantly in length and their starting positions relative to the left margin. Some bars start at the far left, while others are indented. This creates a jagged, abstract profile on the left side of the composition. The bars themselves are solid black rectangles against a white background.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

The image consists of a single, uniform black rectangle covering the entire area. There are no discernible features, text, or patterns.

[REDACTED]

17 (Whereupon, the above-entitled matter went off the record at 2:13
18 p.m.)

PETITIONER:

Jerry Riedinger
Kyle Canavera
Tara Kurtis
PERKINS COIE LLP
riedinger-ptab@perkinscoie.com
canavera-ptab@perkinscoie.com
kurtis-ptab@perkinscoie.com

PATENT OWNER:

David Gosse
Nicholas Peters
Karen Wang
FITCH, EVEN, TABIN & FLANNERY LLP
dgosse@fitcheven.com
ntpete@fitcheven.com
kwang@fitcheven.com