

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

WITHROW NETWORKS, INC.,
Patent Owner.

IPR2025-00775
Patent 10,771,849 B2

Record of Oral Hearing
Held: July 13, 2026

Before MICHAEL R. ZECHER, JUSTIN T. ARBES, and
MARY C. HOFFMAN, *Administrative Patent Judges*.

IPR2025-00775
Patent 10,771,849 B2

APPEARANCES:

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The above-entitled matter came on for hearing on July 13, 2026,
commencing at 1:00 p.m., via video teleconference.

P R O C E E D I N G S

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JUDGE ARBES: This is the oral hearing for IPR2025-00775 involving Patent 10,771,849. Can Counsel please state your name for the record?

MR. CHEN: Good afternoon, Your Honor. Reuben Chen for Petitioner, Google, LLC.

MR. THOMPSON: Good afternoon, Your Honor. Roger Thompson, Counsel to the firm of Villegas & Cefo for the Patent Owner Withrow Networks.

JUDGE ARBES: Thank you. Per the Trial Hearing Order, the parties each have 60 minutes of total time to present arguments. The order of presentation will be, first, Petitioner will present its case regarding the challenged claims and may reserve time for rebuttal. Patent Owner then will respond to Petitioner's presentation and may reserve time for surrebuttal.

Petitioner then may use any remaining time to respond to Patent Owner's presentation. Finally, Patent Owner may use any of its remaining time for a brief surrebuttal, responding to Petitioner's rebuttal arguments only. A few reminders before we begin. We have the parties' demonstrative exhibits and are able to view them on our screens.

To ensure that the transcript is clear and everyone can follow along, please try to state the slide number. Also, if either party is -- either party believes that the other party is presenting an improper argument, we'd ask that you raise that during your own presentation rather than interrupting the other side. Any questions from the parties before we begin?

1 MR. CHEN: No, Your Honor.

2 MR. THOMPSON: No, Your Honor.

3 JUDGE ARBES: Okay. Counsel for Petitioner, you may proceed
4 and would you like to reserve time for rebuttal?

5 MR. CHEN: Yes, I would. 15 minutes please, Your Honor.

6 Thank you, Your Honor. Again, Reuben Chen, and I'm here along with my
7 colleagues Eamonn Gardner and Joe Van Tassel for Petitioner Google, LLC.
8 Your Honor, our Petition has set forth multiple well-supported grounds for
9 why the challenge claims are obvious and unpatentable in light of the prior
10 art.

11 For today's hearing, I'll focus on the parties' three disputes on
12 Ground 1 and two disputes on Ground 2. I'll also be happy to address any
13 additional issues that the parties have briefed, especially if Your Honors
14 have questions about that.

15 Your Honors, all the disputes on Grounds 1 and 2 center around
16 the last two elements of independent Claim 1, which is essentially the same
17 as the last element of Claim 6 and the last element of Claim 7. All the
18 claims require a multimedia player.

19 And then using Claim 6 here, the multimedia player plays back,
20 receives multimedia objects in a sequence such that fluidity, video quality,
21 and audio quality are maintained, one, by selecting a plurality of said
22 multimedia objects that reflect available network bandwidth autonomously
23 adjusting said selection and playback according to the multimedia object
24 parameters and supplied host path identification.

25 And two, by utilizing optimized decoding processes to maintain

1 quality playback. Our Petition demonstrates that the combination of Carmel
2 and Mattavelli render obvious these limitations and the challenge claim.

3 JUDGE ZECHER: Mr. Chen, do you mind just identifying the
4 slide numbers when they come up so that it's clear on the transcript?

5 MR. CHEN: Yes, Your Honor.

6 JUDGE ZECHER: Thanks.

7 MR. CHEN: So I'm on Slide 7 now. So Carmel teaches real-time
8 as well as previously recorded multimedia streaming over a network where
9 the multimedia stream is divided into slices of video and audio. And where
10 each slice has different quality levels so that a client based on available
11 network bandwidth can select a particular quality level.

12 And then if there are changes to the network bandwidth, can adjust
13 the selection and playback of the multimedia objects to ensure continuity.
14 Moving on to Slide 8, Mattavelli teaches computational graceful degradation
15 techniques for optimizing decoding processes during periods when
16 processing resources are overtaxed in order to ensure playback continuity.

17 Carmel and Mattavelli are complementary in that they address
18 different though related potential bottlenecks of multimedia streaming.
19 Carmel focuses on available network bandwidth to adjust selection and
20 playback of the multimedia.

21 Whereas Mattavelli addresses processing resources, available
22 processing resources to optimize decoding of the multimedia. Moving on to
23 Slide 9 here, the party's first dispute is over the limitation, autonomously
24 adjusting said selection and playback according to the multimedia object
25 parameters and supplied host path identification.

1 There is, however, no dispute with respect to how Carmel works
2 with respect to this limitation. The party's dispute is over what is the proper
3 claim meaning of the claim language here. And Patent Owner's position is
4 that there needs to be some independent adjustments to selection and
5 playback.

6 That adjusting playback somehow requires additional adjustment
7 of already downloaded multimedia objects. That position is inconsistent
8 with the claim language. It's not supported by the written description, and
9 it's contradicted by Patent Owner's own positions outside of this IPR and its
10 expert's positions outside of this IPR as I'll now demonstrate.

11 So let's begin with the claim language. The claim language recites,
12 autonomously adjusting said selection and playback. So there's an
13 antecedent basis to the said selection and playback, and that's what's
14 highlighted in yellow here.

15 It's playing back received multimedia objects by selecting a
16 plurality of said multimedia objects that reflect the available network
17 bandwidth. So there's a relationship that claim language makes it clear that
18 there's a relationship between playing back and selecting.

19 And it's playing back specifically by selecting multimedia objects
20 based on available network bandwidth. So the autonomously adjusting said
21 selection and playback, is adjusting the selection and playback together such
22 that based on available network bandwidth, the appropriate multimedia
23 objects will be selected for playback in order to make sure that you have a
24 continuous multimedia stream.

25 JUDGE ARBES: Counsel, can I ask about the relationship that

1 you're talking about between the portions in yellow there, playing back and
2 by selecting? I don't play back just by selecting, right? I mean, I need to do
3 other actions in order to play back the video.

4 MR. CHEN: You're correct about that, Your Honor. That there's
5 the additional step of utilizing optimized decoding processes to maintain
6 quality playback. So you're right that that is a distinct limitation, playback is
7 a distinct limitation. But what the claim language states and what Patent
8 Owner in the District Court litigation and its expert has made clear, is that
9 the adjusting said selection and playback, is by multimedia streaming at
10 multiple quality levels.

11 JUDGE ARBES: Well, if we can put aside for the moment any
12 arguments to the District Court. I'd like to focus on the claim language that
13 is playing back by performing these three steps. And one of those three
14 steps is adjusting the said selection and playback.

15 There must be a reason that “and playback” is there. It can't just be
16 satisfied by the selection, right? I mean, otherwise why say “and playback”
17 there?

18 MR. CHEN: Yes. So the claim language is said selection and
19 playback. So there is an antecedent basis and when we look at the yellow
20 highlighted language, that is the antecedent basis, it's playing back and
21 you're playing back by selecting. Your Honor is correct that the playback is
22 a separate limitation.

23 And so what that means is the selecting is selecting the appropriate
24 multimedia object based on available network bandwidth. But now that
25 you've selected it, of course it needs to be played back as well. And you're

1 playing it back in accordance to the multimedia object parameters and the
2 supplied host path identification.

3 So the remainder of the claim language further supports
4 Petitioner's understanding of the plain meaning, which is that you are
5 selecting the recitation of supplied host path identification is specifically tied
6 to multimedia objects being on a host server that are identified through their
7 host path identification.

8 JUDGE ARBES: But it does require adjusting the playback. I
9 mean, it does require adjusting two things in your view, right? Adjusting the
10 selection and adjusting the playback?

11 MR. CHEN: That is correct, Your Honor. But you are actually
12 adjusting them together. So you're adjusting them by selecting the
13 appropriate multimedia object based on available network bandwidth.

14 JUDGE ARBES: I see that. What I'm concerned about is it seems
15 to be your position that if I adjust the selection, I've automatically adjusted
16 the playback. Why is that an appropriate reading of the claim language
17 when it does recite both things?

18 MR. CHEN: Yes.

19 JUDGE ARBES: Are you not reading out a limitation?

20 MR. CHEN: I'm not reading out the limitation, Your Honor. Yes.
21 And I'll give you an example where you can actually adjust selection and not
22 adjust playback. So if you had multiple servers that had multimedia, the
23 same multimedia object on multiple servers.

24 If you were to have some bandwidth constraints where you're not
25 getting the proper download from the first server to the client, you could

1 actually select the multimedia object from a different server. So there you're
2 actually adjusting the selection without not necessarily adjusting the
3 playback.

4 But there is a relationship here that the claim language makes very
5 clear that there's a relationship between playing back. It's not just playing
6 back, it's playing back by selecting. And so the multimedia object is going
7 to affect the playback.

8 Now of course, if it's the same encoding rate, if it's the same bit
9 rate, then it's going to be played back without any adjustment, and you can
10 do further adjustments to the playback. We're not saying that you can't do
11 further adjustments to the playback, but what the claim language is saying is
12 that you are adjusting the said selection and playback, both of them.

13 JUDGE ARBES: How do you respond to the point that your
14 unpatentability analysis for Carmel and Mattavelli, for instance, would
15 appear to be the same if the claim never said "and playback"? Do you agree
16 with that --

17 MR. CHEN: The claim never said and playback.

18 JUDGE ARBES: -- that you rely on the selection?

19 MR. CHEN: No, I don't agree with that, Your Honor, because you
20 still need a playback. Playback is a separate -- it's still a separate limitation.
21 If you just selected the multimedia objects and you didn't recite playback,
22 you wouldn't be able to playback the multimedia objects to a client.

23 JUDGE ARBES: Yes. I'm focusing on the limitation of adjusting
24 the playback. Certainly, playing back is the first limitation of the claim. But
25 it does seem that your analysis, if I just removed the limitation of adjusting

1 the playback, your unpatentability analysis would be exactly the same for
2 Carmel, let's say. Because you're relying on the selection as getting you the
3 playback.

4 MR. CHEN: That is correct. And we have provided an alternative
5 mapping using Patent Owner's what we think is in the incorrect
6 interpretation of what this claim language means. We have provided a
7 separate mapping of where Carmel adjusts the selection, and Mattavelli
8 adjusts the playback. I'm happy to go through that --

9 JUDGE ARBES: Yes. And just talking about Carmel for the
10 moment.

11 MR. CHEN: Yes. Yes. You're correct. With respect to Carmel, it
12 is the adjusting the selection and playback together, and we think that is
13 what the claim language says because of the antecedent basis and the rest of
14 the claim language, which includes, according to the multimedia object
15 parameters and supplied host path identification.

16 What this is claiming is multimedia streaming at multiple quality
17 levels, which Patent Owner has made clear in its District Court positions.

18 JUDGE ARBES: Can we talk a bit about what it means to adjust
19 playback? Let's assume for the moment that there is -- that that is a separate
20 requirement, and that it has some meaning in the context of the claim. What
21 does it mean to adjust playback? There's been a lot of discussion in the
22 briefs about exactly what that means. Can I hear your view on that?

23 JUDGE ZECHER: Yes. Can we color that a little bit? I mean, I
24 think we've all read through the specification here, and just looking for some
25 explanation as to what that means. We don't see a lot of use of adjust

1 playback outside the claims, maybe one instance in column 4. So to the
2 extent you can kind of color what adjust playback means in the context of
3 this patent, that would be helpful.

4 MR. CHEN: Well, I think in the context of this patent, it supports
5 Petitioner's plain meaning, which is adjusting the playback by making sure
6 you're choosing the appropriate quality level multimedia object. But if we
7 want to take Patent Owner's interpretation, which would be basically
8 separately, additionally after multimedia objects have already been
9 downloaded, further adjusting them, Mattavelli satisfies that because it
10 teaches optimized decoding processes where you can speed up, for example,
11 simplify the decoding, speed it up at the expense of basically lesser quality
12 video output. And that is adjusting the playback.

13 JUDGE ARBES: Before we get to the prior art, what I'd like to
14 drill down on a bit is what it means to adjust playback. And looking at the
15 specification, Patent Owner, for example, has given some examples of what
16 appeared to be adjusting playback of adjusting the frame size to fit the
17 screen. Is that something that you would consider adjusting playback?

18 MR. CHEN: I would. And I think that supports our position. And
19 let me explain why. The language is actually here on Slide 14. And this
20 language supports Petitioner's plain meaning because what it's describing is
21 the ability to modify the object parameters of multimedia objects such as the
22 size of the digital -- visual frame or the sample rate of the audio stream.

23 You wouldn't be adjusting the sample rate or the size of the visual
24 frame unless you had multiple quality levels on a host server to select from.
25 So this actually supports Petitioner's understanding of the plain meaning.

1 And if I could also address an argument that the Patent Owner raised for the
2 first time on Surreply, they point to, this is on Slide 15, column 8, line 48 to
3 column 9, line 3, which is a passage that discusses a decision on whether to
4 delay or begin playback of already downloaded multimedia objects.

5 But the decision on whether to delay or begin playback is not the
6 same thing as adjusting playback after a stream has already started, right?
7 The claim language says that you're playing back by selecting a plurality of
8 said multimedia objects that reflect available network bandwidth.

9 And then you're autonomously adjusting said selection and
10 playback. So this claim language -- this passage that the Patent Owner has
11 pointed to in their Surreply is irrelevant to the actual claim language. And
12 it's further irrelevant because it says nothing about adjusting the selection of
13 multimedia objects based on available network bandwidth.

14 JUDGE ARBES: Can you give some other examples of adjusting
15 playback? Assuming for the moment that this is a separate limitation that
16 has to be separate from the selection.

17 MR. CHEN: Yes.

18 JUDGE ARBES: What would be some other examples of
19 adjusting playback that are consistent with the specification?

20 MR. CHEN: Well, the specification talks about exactly what I was
21 saying, which is the specification talks about simplifying the decoding
22 process in order to make sure that it's faster. So the specification talks about
23 sacrificing quality in order to maintain fast enough speed.

24 JUDGE ARBES: The shortcuts?

25 MR. CHEN: That's the shortcuts. Exactly. Yes. In fact, that's

1 what all the optimizations really talk about in the specification. And this is
2 on Slide -- this is on Slide 42, 43, and 44 as an example.

3 JUDGE ARBES: And just to make sure I understand, the shortcuts
4 are modifications made to the decoding process. But in your view, that is
5 also adjusting playback? It's adjusting the decoding process, but it's also
6 adjusting playback, right?

7 MR. CHEN: That's correct.

8 JUDGE ARBES: Okay. Can you explain why that's the case?
9 Because Patent Owner, I believe, made the point that decoding is different
10 than playback.

11 JUDGE ZECHER: Yes. And that was a question I had. Because
12 when you look at the claim, and we're focused in on the adjusting playback
13 limitation, but the last limitation in the claim says, utilizing optimized
14 decoding process to maintain quality playback. It almost insinuates in the
15 claim that the decoding process is different than the playback itself.

16 MR. CHEN: The decoding process can impact the playback. And
17 what it can do is it can ensure that the fluidity, video quality, and output
18 quality overall are maintained. And it does that. The specification discusses
19 doing that by simplifying basically the decoding process.

20 JUDGE ZECHER: I guess I don't want to put words in your
21 mouth, but you're saying the decoding process is part of adjustment
22 playback?

23 MR. CHEN: It can be used to adjust the playback. There's still
24 separate limitations. And I can explain why, because you can satisfy the
25 utilizing optimized decoding process without actually applying any

1 optimization algorithms. Patent Owner's own expert admitted that.

2 That as long as a decision is made as to whether to apply a
3 decoding optimization or not, that satisfies the claim language. So you don't
4 necessarily need to adjust the fluidity or video quality or audio quality, you
5 can still satisfy this particular claim language.

6 The adjusting is a separate limitation because you're adjusting
7 according to multimedia objects and the supplied host path identification.
8 So if I can talk about Mattavelli, Mattavelli teaches that because it uses as an
9 object parameter complexity prediction information.

10 That complexity prediction information can either be inside
11 information or header information. And then it's used to determine the
12 amount -- when and the amount in which to apply the CGD techniques in
13 order to ensure fluid playback and to basically be able to adjust the
14 playback.

15 JUDGE ZECHER: So I guess what I'm -- are you saying, so
16 decoding process could be part of the playback, but here it's a separate
17 limitation because of the optimization that's taking place. Is that correct?

18 MR. CHEN: Could you say that one more time, Your Honor?

19 JUDGE ZECHER: I said, I think I understood you to say that the
20 decoding process could be part of playback, but here with the utilizing
21 optimized decoding process, it makes it a separate limitation because of the
22 optimization aspect of that. Is that correct?

23 MR. CHEN: Yes.

24 JUDGE ZECHER: Okay. All right.

25 MR. CHEN: Okay. So to continue, let me actually move on to

1 Slide 18. So Patent Owner's half post construction that would require
2 independent adjustment of playback of already downloaded multimedia
3 objects is contradicted by Patent Owner's own position in District Court.

4 Where the exact same claim language that we're looking at here
5 now today was referenced by the Patent Owner, and where the Patent Owner
6 tied this language with multimedia streaming at multiple quality levels. We
7 see that here on Slide 18, which is the relevant portion of Patent Owner's
8 101 opposition brief.

9 It pointed to this claim language, and then stated, this element
10 introduces the concept of ABR. Media fluidity and quality are maintained
11 by the client player through references to available network bandwidth, and
12 to multimedia object parameters to overcome bandwidth limitations media
13 streamed in multiple quality levels.

14 And then this next part I really want to point out, Patent Owner
15 then went on and said, thus, object parameters, for example, data rate or size
16 of visual frame, are compared to bandwidth in conjunction with the location
17 of files, for example, URL, to stream the media with the quality level being
18 adjusted based on bandwidth.

19 So we saw that earlier in the written description. There's
20 discussion of the size of the visual frame or the data rate. And what Patent
21 Owner has stated in the District Court litigation, is that that's part of multi-
22 level streaming. That multi-level streaming satisfies the adjusting said
23 selection and playback.

24 There's no further requirement. Patent Owner didn't say there's
25 some further requirement to then adjust already downloaded multimedia

1 objects.

2 JUDGE ARBES: But Counsel, as I understand it, this was in an
3 opposition to a motion to dismiss under 101, right?

4 MR. CHEN: Correct.

5 JUDGE ARBES: Okay. Well, just as a general matter, why is this
6 sort of argument relevant to our task to determine the meaning of the claims,
7 and then whether the prior art teaches or suggests those limitations? Why is
8 this type of 101 argument relevant to that analysis?

9 MR. CHEN: It's relevant to claim construction, Your Honor. So --

10 JUDGE ARBES: Of which --

11 MR. CHEN: -- you're of course not deciding the issue of 101,
12 you're not deciding the issue of an infringement, but the way in which the
13 Patent Owner treats this claim language that it's saying, this claim language
14 is satisfied by multimedia streaming at multiple quality levels, that is
15 certainly relevant to what the proper claim meaning is.

16 JUDGE ARBES: Of which terms?

17 MR. CHEN: Of the term that we were talking about here, the
18 autonomously adjusting said selection and playback. This was the exact
19 claim element that was discussed in the 101 opposition brief. What's shown
20 here is exactly what Patent Owner stated in District Court. This is the
21 entirety of what it stated with respect to this limitation.

22 And it pointed to multi-level streaming as satisfying the
23 autonomously adjusting said selection and playback. And that makes sense
24 because said selection and playback has an antecedent play basis. It's
25 playing back by select.

1 And as we've set forth in our Papers, Patent Owner's infringement
2 allegations similarly point to multi-level streaming. And as we've shown,
3 Carmel satisfies that. Carmel satisfies that through its Figure 6B, which
4 discusses the ability of a client to select a particular quality level based on
5 available network bandwidth to read those slices, decode them, play them
6 back.

7 And then periodically the client's going to make an assessment of
8 the rate of data transfer over the link from the server. And if necessary,
9 make changes to the quality level accordingly.

10 JUDGE ARBES: Counsel, going back to the slide with the arrows
11 for just a moment.

12 MR. CHEN: Yes.

13 JUDGE ARBES: Its Slide 12, right?

14 MR. CHEN: Slide 12. Sorry. Yes.

15 JUDGE ARBES: Your contention is that the playback is in the
16 box labeled output data, right?

17 MR. CHEN: Correct.

18 JUDGE ARBES: There is no adjustment to that step disclosed in
19 Carmel, right?

20 MR. CHEN: There is under the correct plain meaning, Your
21 Honor. When you're adjusting the selection by choosing the appropriate
22 quality level, then the playback is going to be at that quality level.

23 JUDGE ARBES: Okay. But it does not describe that -- when it
24 describes that step in Carmel, it does not say that there is any change made
25 to that step. It's something later of the selection that you show on the bottom

1 there?

2 MR. CHEN: That's correct. By selecting the appropriate quality
3 level, the playback is going to be affected by the selection. Correct, Your
4 Honor. So I want to point out, and this is -- we're now on Slide 17, I want to
5 point out that the Patent Owner's own expert in the *ex parte* reexamination
6 of Carmel, where he advocated for the validity of Carmel stated that the '473
7 Patent that's Carmel, ensures real-time delivery of multimedia streams by
8 maintaining the upload Claim 1, download Claim 1, and replay Claim 8
9 rates.

10 So they're generally equal to the assigned given data rate of the
11 stream. And it's important to point this out because Patent Owner has taken
12 the position that somehow the replay rate is not playback, it's not playback
13 rate. And that's simply not correct.

14 Because as you can see, Mr. Goldman pointed to Claim 8 here in
15 his declaration, his sworn declaration. And when we look at Claim 8, it
16 specifically ties playback to the replay rate, which is generally equal to the
17 data rate. Plays back the data stream responsive to the indices of the files at
18 a replay rate generally equal to the data rate.

19 And so, what that means is when Carmel changes the data rate
20 based on the available network bandwidth, that the playback or replay rate
21 will also be changed. And so it satisfies this claim language autonomously
22 adjusting said selection and playback.

23 JUDGE ARBES: So in your view, replay rate and playback rate
24 are the same thing?

25 MR. CHEN: Correct.

1 JUDGE ARBES: What support in the record would you point to
2 for that? Patent Owner makes the argument in the Surreply at page 9, that
3 the replay rate is the cadence at which bits are consumed by the player, and
4 playback is the rendered output the user perceives, which depends on
5 additional steps such as decoding, frame timing, scaling, and rendering.
6 Why is that incorrect?

7 MR. CHEN: That's incorrect specifically because of what I
8 pointed to on Slide 17, at least because of this. Mr. Goldman testified,
9 sworn testimony, that basically equated the upload, download, and replay or
10 playback rates so that they're generally equal to the data rate of the stream.
11 And we see here in Claim 8 that the playback rate is tied to the replay rate,
12 which is generally equal to the data rate.

13 JUDGE ARBES: But he doesn't exactly say what replay rate is or
14 define the term, right?

15 MR. CHEN: Well, he ties it directly to playback rate. Play back
16 the data stream responsive to the indices of the files, at a replay rate,
17 generally equal to the data rate.

18 JUDGE ZECHER: But the claim just says playback, right? It
19 doesn't say playback rate. So would you say playback rate falls within the
20 umbrella of a broader playback?

21 MR. CHEN: I think the way this claim language is written, it's
22 clearly tying playback to the replay rate. Playback is the replay rate.

23 JUDGE ZECHER: But I'm talking about the language of the
24 disputed patent, it just says playback. It doesn't say playback rate, it says
25 adjust selection and playback, correct?

1 MR. CHEN: Correct. Correct. Yes.

2 JUDGE ZECHER: Yes.

3 MR. CHEN: That's a good point, Your Honor. And that actually
4 helps our position not theirs. It's just adjusting playback, it's not saying
5 adjusting the playback rate.

6 JUDGE ZECHER: Okay.

7 MR. CHEN: Correct. It's broader.

8 JUDGE ARBES: Is there an industry accepted definition for the
9 term replay rate? Is that a term of art?

10 MR. CHEN: I don't know if it's a term of art, Your Honor.

11 JUDGE ARBES: Because there does appear to be a dispute
12 between the parties as to what that term means.

13 MR. CHEN: I think it's just plain meaning, Your Honor, just the
14 replay. Let me move on actually to -- let me actually just really quickly
15 address, that even under Patent Owner's what we believe incorrect
16 interpretation that Mattavelli would satisfy -- the combination of Carmel and
17 Mattavelli would satisfy the autonomously adjusting said selection and
18 playback.

19 And that's because Mattavelli teaches adjusting the playback
20 through object parameter, specifically the complexity prediction
21 information. And the complexity prediction information can be side
22 information as shown here on Slide 22 or header information as shown here
23 on Slide 22 in the middle column.

24 And that can be used to execute only the CGD algorithms that are
25 just necessary to not exceed the target decoding time. And then Mattavelli

1 further teaches, obviously, the implementation of CGD features are not
2 proposed to be used at their maximum degradation rate, but as a tool able to
3 guarantee real-time performance in presence of peaks of decoding
4 complexities.

5 And so Mattavelli teaches autonomously adjusting based on the
6 complexity prediction information, based on that object parameter, the
7 playback. Let me move on to the second dispute, Your Honor. So the
8 second dispute is over the requirement that fluidity is to be maintained.

9 And the only place in the written description that uses the word,
10 fluid, is shown here on Slide 26. And it states that the buffering and
11 playback of multimedia objects in a synchronized fashion is critical to fluid
12 playback. Well, that's materially matched by Carmel's teaching, that the
13 client reconstructs and outputs the multimedia data for the appreciation of a
14 user.

15 And that timestamps in the data stream are used to synchronize the
16 data so that the multimedia sequence is played back just as it was input at
17 computer 34. Now, Patent Owner makes multiple arguments when it comes
18 to fluidity.

19 It first argues that fluidity refers to the smoothness and continuity
20 of playback as perceived by the viewer, specifically the absence of jitter,
21 freezes, or choppiness. Carmel and Mattavelli teach this. Second, Patent
22 Owner argues that real-time playback is not equivalent to fluid playback.

23 That's directly contradicted by Patent Owner's own expert sworn
24 testimony in multiple forums. And then finally, the Patent Owner states that
25 if the three claim steps are performed, then that results in fluid playback.

1 But that's exactly what our Petition teaches by the combination of Carmel
2 and Mattavelli.

3 I'd like to address all three of these arguments with the first one
4 being that fluidity refers to smoothness and continuity. And what I'd like to
5 point out is that the Patent Owner referred to this fluidity as being
6 maintained by multi-level streaming. We've seen the same language
7 previously.

8 I've reiterated here on Slide 28, and specifically the Patent Owner
9 stated that media fluidity and quality are maintained by the client player
10 through references to one available network bandwidth and two multimedia
11 object parameters.

12 To overcome bandwidth limitations, media is streamed in multiple
13 quality levels. And of course, we see that Carmel teaches multimedia
14 streaming at multiple quality levels. And Patent Owner further stated in its
15 infringement allegations, essentially the same thing, that playback fluidity,
16 video quality and audio quality are maintained based on multiple versions of
17 each stream that fit the available bandwidth.

18 Well, that's exactly what Patent Owner's own expert stated during
19 the reexamination of Carmel. Under his sworn declaration, he stated that
20 Carmel teaches during real-time streaming, client computers may select a
21 file from different quality levels corresponding to that slice of multimedia
22 data depending on the existing network conditions such as varying
23 bandwidth constrictions.

24 Let me now address the Patent Owner's second argument, is not
25 equivalent to fluid playback. That's directly contradicted by Patent Owner's

1 experts in multiple forums. District Court IPR deposition, as well as his
2 sworn declaration in the *ex parte* reexamination of Carmel.

3 So on the upper left here on Slide 32, he equated real-time with
4 being able to deliver a fluid picture. In the lower left here, he admitted in his
5 IPR deposition, that fluidity of a video is that the viewer perception of the
6 video matches the in-person experience. And that's how he described
7 Carmel in his *ex parte* re-exam declaration.

8 He stated that Carmel is directed to real-time broadcasting, and
9 that Carmel seeks to make the client's experience of watching a video being
10 broadcast in accordance with the method disclosed therein to be as close as
11 possible to matching a live or in-person experience. So Patent Owner's own
12 expert contradicts Patent Owner's position in this IPR.

13 JUDGE ARBES: Counsel, can you respond to the argument
14 Patent Owner made that they are different concepts because a real-time
15 broadcast can still be choppy or freeze during playback? That's still possible
16 in a real-time broadcast. So they're not the same.

17 MR. CHEN: I believe that their expert though, has equated real-
18 time playback with fluidity. If it's truly a real-time playback, then there
19 shouldn't be choppiness. I'm not saying that you could have issues of
20 choppiness during like a live broadcast. I'm not saying that. But then that
21 wouldn't be what would be understood as real-time.

22 When you look at the prior art references like Mattavelli, it's
23 teaching and prioritizing real-time playback to avoid those interruptions that
24 you're referring to, Your Honor. To avoid the cutting of images, the
25 skipping of images, the choppiness.

1 JUDGE ARBES: Is there anything that you would point us to as to
2 how one measures fluidity? How one measures choppiness?

3 MR. CHEN: Yes.

4 JUDGE ARBES: Things of that nature?

5 MR. CHEN: Well, the only thing in the written description is that
6 one sentence, Your Honor, which basically says you need to have
7 synchronized playback. And Carmel certainly teaches that, Your Honor. I
8 would point to, again, Patent Owner's expert statements. Patent Owner's
9 experts equated real-time with fluid playback shouldn't be allowed to take
10 different positions.

11 JUDGE ARBES: What about in column 3, line 43, the buffering
12 aspect of that? That sentence reads, the buffering and playback of
13 multimedia objects in a synchronized fashion is critical to fluid playback.

14 MR. CHEN: Right.

15 JUDGE ARBES: So I see your point about the synchronization,
16 but you also have to have sufficient capacity for buffering in order to have
17 fluid playback, right?

18 MR. CHEN: That is correct, Your Honor.

19 JUDGE ARBES: How does that play into your real-time
20 argument? You have the real-time transmission, but you also need sufficient
21 capacity for buffering.

22 MR. CHEN: If you have real-time playback, then you have
23 sufficient capacity for buffering.

24 JUDGE ARBES: They're one and the same?

25 MR. CHEN: Well, they're not necessarily one and the same, but if

1 you're able to accomplish real-time playback, that means that there is
2 sufficient buffering capacity.

3 JUDGE ARBES: I see.

4 MR. CHEN: And basically, if you had, for example, smaller
5 memory, you may need to select a lower quality level of multimedia object
6 in order to maintain that real-time continuous playback, which is what
7 Carmel teaches and Mattavelli teaches. Okay.

8 So let me actually move on to -- let me move on to -- let me just
9 quickly address Patent Owner's third argument, which is by performing the
10 claim three steps that results in maintaining fluidity. And whether you want
11 to call this three steps or two steps where the first step is two subparts, our
12 Petition demonstrates the combination of Carmel and Mattavelli satisfies
13 these steps.

14 We've already discussed how Carmel satisfies 1A and 1B, or in the
15 alternative that Carmel and Mattavelli satisfy 1B. That's the autonomously
16 adjusting said selection and playback. And then Mattavelli satisfies the
17 utilizing optimized decoding processes to maintain quality playback.

18 And it does that through its CGD techniques, which prioritize real-
19 time playback to avoid interruptions, which are perceptually very annoying
20 and to avoid cutting image portions or simply skipping frames. And I just
21 want to make it clear, there's no dispute that a person of ordinary skill in the
22 art would be motivated to combine Carmel and Mattavelli.

23 Patent Owner does not dispute that. And our expert, Dr. Polish,
24 has explained in detail in his declaration multiple reasons for why a person
25 of ordinary skill in the art would be motivated to combine Carmel and

1 Mattavelli, including that these are complementary references that address
2 different though related potential bottlenecks in multimedia streaming.

3 If I can move on to the third and final issue of Ground 1. That is
4 the requirement of utilizing optimized decoding processes to maintain
5 quality playback such that fluidity, video quality, and audio quality are
6 maintained. And whether or not to maintain quality playback is a general
7 statement of intended use or not.

8 And we believe it is a general statement of intended use. But
9 regardless, Mattavelli teaches maintaining fluidity, video quality, and audio
10 quality. And by demonstrating that, it satisfies the more generic maintaining
11 quality playback.

12 Now, Patent Owner's position is that degrading video output
13 quality cannot satisfy maintaining overall fluidity, video quality, and audio
14 quality. But this position is contradicted by the claim language, the written
15 description, and Patent Owner's own expert's sworn testimony in District
16 Court as I'll now demonstrate.

17 First with the claim language, the claim language expressly recites
18 autonomously adjusting said selection and playback, adjusting. So that
19 means that there's no requirement that maintaining means things remain
20 static. Maintaining can involve adjusting and can involve changes to the
21 fluidity, video, and audio quality overall.

22 Further, and perhaps more telling, is the written description. The
23 written description specifically teaches decoding optimizations that sacrifice
24 video output quality. This is shown here on Slide 42, Your Honor.

25 And on Slide 43 we see that video output quality can be sacrificed

1 in order to perform faster processing, in order to maintain that fluidity. And
2 then we see on Slide 44, that the written description states that the highest
3 quality is consistent with the video codec specification and displays a correct
4 image.

5 And medium quality level indicates that certain time-consuming
6 shortcuts are made with some impact on image quality. And that a low-
7 quality level indicates that drastic reductions in display quality are made to
8 improve processing time.

9 Perhaps most telling, Your Honors, is that Patent Owner's own
10 expert in sworn testimony has stated that the claimed optimized decoding
11 process has to involve degrading some amount of audio and video quality.
12 He was asked in his District Court deposition, but isn't it the case that to
13 meet the definition of optimize decoding process, you actually have to
14 degrade some amount of audio and video quality to reduce the complexity of
15 the calculations or the number of calculations?

16 The answer, well, yes, that's exactly what the patent described, and
17 it states that explicitly. He went on to provide a number of additional
18 admissions, including that fluidity is the more important factor, and that
19 other qualities can be sacrificed, traded off for fluidity.

20 So he was asked, so my question to you is, if you were reducing
21 certain aspects of quality but are maintaining fluidity, would that satisfy this
22 claim element which refers to utilizing optimized decoding processes to
23 maintain quality playback?

24 He answered, yes. And then he went on to say the goal is to have
25 -- is to maintain quality playback, and a person of ordinary skill in the art

1 would come to the same conclusion that the fluidity is the more important
2 factor and it would sacrifice some of the other elements to do that.

3 There's additional admissions that are shown on Slide 47. In the
4 interest of time, I will not read them all, except for the last one he was asked.
5 And so the video quality may be diminished in order to maintain fluidity?
6 He answered, Correct.

7 And that's exactly what Mattavelli teaches. Mattavelli teaches the
8 possibility of degrading visual quality in order to maintain real-time
9 playback.

10 JUDGE ARBES: Counsel, I understand your point about the
11 tradeoff between quality and fluidity. But does that not in some sense
12 conflict with the earlier language in the claim that says, such that fluidity
13 video quality and audio quality are maintained, that all three are maintained?

14 MR. CHEN: No. I believe it's because overall fluidity, video
15 quality, and audio quality are maintained. As long as that overall
16 maintenance is satisfied based on available constraints, whether those are
17 network bandwidth constraints or processing resources constraints, that
18 satisfies the maintaining fluidity, video quality, and audio quality.

19 But even if Patent Owner's incorrect interpretation were applied,
20 Mattavelli still teaches that limitation because Mattavelli teaches that you
21 don't need to apply any CGD algorithm at all. The decision can be there's
22 enough available processing resources, so I'm not going to apply CGD.

23 And the Patent Owner's expert testified that this kind of decision
24 where there's a determination of whether to apply an optimization algorithm
25 or not, satisfies the limitation of optimized decoding processes.

1 JUDGE ARBES: But if I do apply the CGD, then I have degraded
2 video quality in order to get better fluidity?

3 MR. CHEN: Correct.

4 JUDGE ARBES: And presumably the reverse would apply as
5 well.

6 MR. CHEN: That's possible, Your Honor.

7 JUDGE ARBES: So I guess my question again is, how does that
8 comport with the claim language that says all three are maintained?
9 Fluidity, video quality, and audio quality are maintained.

10 MR. CHEN: Well, I think that claim language needs to be read in
11 the context of the rest of the claim language, as well as the written
12 description. And the written description when it's discussing optimization
13 algorithms, it's specifically talking about optimizations that degrade video
14 output quality in order to have fast enough processing speed.

15 Those are on Slides 42, 43, and 44, Your Honor. So in the interest
16 of time, let me just -- I'll actually address the second dispute on Ground 2.
17 I'll rest on the Papers, I might -- depending on what Patent Owner argues, I
18 may have responses to this dispute, the first dispute on Ground 2.

19 But the second dispute on Ground 2 is whether there would be a
20 motivation to combine Carmel and Wang. And there is. And Patent
21 Owner's position is that Carmel is somehow limited to existing client
22 hardware and software, whereas Wang is directed to an improved hardware
23 and software decoder at the client devices.

24 And then Patent Owner further states that implementing Wang's
25 decoder in Carmel would require upgrading each client's personal computer

1 or workstation to include the improved decoder hardware and software.
2 That is every customer of Carmel's internet service provider would have to
3 buy new hardware with Wang's prototype decoder architecture.

4 Patent Owner's arguments is flawed for multiple reasons. First of
5 all, Carmel's teachings are applicable to a wide variety of client computing
6 devices, including mobile devices as Patent Owner's own expert recognized,
7 again, in the *ex parte* reexamination Carmel.

8 Carmel is in fact not limited to using only what already exists on a
9 client's device. Carmel teaches providing a client with a Java applet or
10 plugin. The ARM platform is not specialized hardware. Wang specifically
11 states that the ARM platform is one of the most typical portable devices and
12 takes almost 75 percent of the market for the mobile devices.

13 And then ultimately, Patent Owner's position that somehow every
14 customer of Carmel would need to use the ARM platform, that's not the
15 standard for obviousness, Your Honor. And so if Your Honors have any
16 questions, I'd be happy to answer them. Otherwise, I'd like to reserve the
17 rest of my time for rebuttal.

18 JUDGE ARBES: Thank you.

19 MR. CHEN: Thank you.

20 JUDGE ARBES: Counsel for Patent Owner, you may proceed.
21 Would you like to reserve time for rebuttal?

22 MR. THOMPSON: Yes, Your Honor. I'd like to reserve 15
23 minutes as well. May I start?

24 JUDGE ARBES: Yes, please.

25 MR. THOMPSON: Thank you, Your Honor. Again, my name is

1 Roger Thompson on behalf of Withrow Networks. I think Your Honors hit
2 the most important points during my learned opponent's presentation. The
3 first is that if you try to read the term, autonomous adjusting of selection and
4 playback as suggested by Google, you end up reading the word playback out
5 of the claims.

6 Because they're saying that simply adjusting selection is enough to
7 adjust playback so that you adjust selection playback together, that's good
8 enough. But if playback is nothing more than a means of selection, then the
9 claim can be interpreted to read autonomously adjusting selection and
10 selection. And that makes no sense.

11 They have to mean different things. And the Petitioner glosses
12 completely over what they mean differently. They would rather have them
13 just be the same thing and they can't be the same thing. We know that from
14 any number of cases cited in the brief, cited in the Surreply. I don't think I
15 need to belabor that point, unless Your Honors have any questions on that.

16 JUDGE ZECHER: Mr. Thompson, can you explain to us what
17 you think adjusting playback means in the context of the '849 Patent?

18 MR. THOMPSON: Well, there are a number of different things it
19 can mean that we've seen in the -- I have this slide on. I think I have the
20 slide up correctly now. I think it's Slide number 5, which is pointing to a
21 section of the '849 Patent, starting at column 8, about line 48 through 57.

22 And it decided in the Surreply on paper 39, which is Paper 39,
23 page 3. Specifically says that the object player may choose to either delay
24 playback until the multimedia object buffers in memory have filled or may
25 begin playback immediately.

1 That's one way of adjusting playback, delaying and starting it as
2 appropriate to adjust the manner in which its performed. There are other
3 possibilities of adjusting playback that were hit on, frame size, et cetera.
4 Here it's --

5 JUDGE ZECHER: Well, if that's true, if you could delay it or play
6 the -- let's go with the example of delaying it. How would that meet the
7 other elements of the claim that talk about maintaining fluidity, video
8 quality, audio quality? I mean, would you maintain fluidity if you delayed
9 playback?

10 MR. THOMPSON: It depends on how -- I would say the answer
11 to that is, yes, it would depend though on what the frames in the buffer were.
12 You may have to delay them just to allow the playback and -- the playback
13 to catch up to where you are in the stream, the input stream. So that you
14 would have to adjust the playback to accommodate the playback stream
15 coming back at a different rate.

16 JUDGE ZECHER: So this is an example where the data rate and
17 the playback don't line up, right? What you're receiving stream wise and
18 how you want to output it.

19 MR. THOMPSON: Yes, sir.

20 JUDGE ZECHER: Okay.

21 MR. THOMPSON: In one way.

22 JUDGE ARBES: Counsel, what about if I change the playback
23 rate? Is that adjusting playback?

24 MR. THOMPSON: You change the playback rate, does that adjust
25 the playback? I would say no.

1 JUDGE ARBES: Why not?

2 MR. THOMPSON: Because the rate of the playback is not the
3 playback itself. The playback is the visual perception, and it hopefully was
4 coming out at the same rate as it is going in. But it wouldn't be necessarily
5 the same as the playback. The rate and the playback are just different things,
6 that's why they have different words.

7 JUDGE ARBES: So playback rate, and correct me if I'm wrong,
8 that's -- we can measure that, for instance, frames per second, something like
9 that, right? Okay. Why is that not -- if I change that, I'm changing what the
10 user is seeing, they're seeing more frames per second. Why am I not
11 adjusting playback then?

12 MR. THOMPSON: You are, but that's only one way to do it. It's
13 not the only -- it doesn't -- just because one is a subset of the other, does not
14 mean that they are the same thing.

15 JUDGE ARBES: Well, no, I'm not -- I guess my question is, if I
16 adjust the playback rate, I change the frames per second, the user sees more
17 frames or less frames. Have I met the claim limitation, adjust playback?

18 MR. THOMPSON: Change the playback rate. That would be one
19 way to change the playback rate. Yes. If you adjust the playback rate.

20 JUDGE ARBES: I would be adjusting playback?

21 MR. THOMPSON: You would have to be, yes.

22 JUDGE ZECHER: What about the replay rate? What if I adjust
23 the replay rate? Would that be adjusting playback?

24 MR. THOMPSON: Well, I don't believe that the '849 Patent uses
25 the term replay rate. So we're talking a little bit about apples and oranges on

1 what language we're using.

2 JUDGE ZECHER: Is replay different than playback or they are
3 synonymous?

4 MR. THOMPSON: I would say they're not synonymous. They
5 are related concepts, but they are not the same thing. Again, we're going
6 back to playback rate versus replay rate. And playback is different than a
7 replay rate. They are, again, just different things.

8 JUDGE ZECHER: Well, how are replay and playback different?

9 MR. THOMPSON: Well, playback, I would say encompasses the
10 entire look and feel of what the user is observing and perceiving. The replay
11 rate just goes to the speed of the incoming data, the outputting -- output data
12 stream, while the playback encompasses much more than that.

13 JUDGE ZECHER: So replay is kind of a species of --

14 MR. THOMPSON: Yes, I would say that.

15 JUDGE ZECHER: Okay.

16 JUDGE ARBES: Does the specification give any other examples
17 of adjusting playback in your view?

18 MR. THOMPSON: I don't remember any other specific section of
19 the specification which does that other than the one we took a look at saying
20 that buffering is important to synchronization. I can pull that up. I have it as
21 one of my demonstratives too.

22 That I have is Slide 8, buffering and playback of multimedia
23 objects in a synchronized fashion is critical to fluid playback. I think that
24 that addresses the question that's cited in the Surreply on page 13, and is
25 found in the '849 specification column 3, lines 43 to 45. Did I answer your

1 question, Your Honor?

2 JUDGE ARBES: Yes. Counsel for Petitioner also pointed to the
3 portions of the specification talking about the shortcuts, changes made to the
4 decoding process. Is that adjusting playback as well? Is that an example of
5 adjusting playback?

6 MR. THOMPSON: That would be some examples of adjusting
7 playback, but those are more, I would think, part of the optimizing features
8 of the inventive claim.

9 JUDGE ARBES: But they would adjust or change the playback,
10 what the user sees?

11 MR. THOMPSON: Yes, they would have to adjust play. Counsel
12 has said that Carmel and Mattavelli are complementary to one another. I
13 would disagree with that assessment. I would say that they are actually at
14 loggerheads with one another. Carmel teaches that selection and only
15 selection is changed.

16 In the Carmel patent, is choosing between different video quality
17 slices, but you're not adjusting anything that happens in the playback. And
18 they do not teach in any way deliberately degrading the quality of the output,
19 which is what Mattavelli teaches.

20 Now, in the context of the -- and so they are inconsistent with one
21 another. Carmel teaches that you must keep quality up as best you can,
22 while Mattavelli teaches no, no, no, it's good in some circumstances to save
23 resources, et cetera, to degrade quality deliberately.

24 I would posit that the person of ordinary skill in the art would not
25 be motivated to combine those two things because they are inconsistent with

1 one another rather than complementary.

2 JUDGE ZECHER: Counsel, did you present a motivation to
3 combine these two references or a lack thereof in your substantive papers?

4 MR. THOMPSON: The word motivation does not appear in the
5 Surreply, but there are arguments made in pages 14 through 17, I think I
6 wrote down. 18.

7 JUDGE ZECHER: Of the Patent Owner Response?

8 MR. THOMPSON: Of the Patent Owner Surreply detailing why
9 Mattavelli doesn't teach the --

10 JUDGE ZECHER: Well, we talked --

11 MR. THOMPSON: Mattavelli's degradation would not -- would
12 impact adversely upon the Carmel product method.

13 JUDGE ZECHER: And that's in the Surreply, but not in the Patent
14 Owner Response? So that appears to be a new argument presented for the
15 first time in the Surreply then.

16 MR. THOMPSON: It was done in reply to the arguments raised
17 by Petitioner in the Reply, in which the initial Petition did not rely on the
18 combination with Mattavelli to teach the autonomous adjustment limitation
19 in the Petition as it was written and as filed originally.

20 It was alleged only that Carmel by itself met that limitation. It was
21 in the Reply that for the first time Google asserted that Mattavelli could be
22 used to provide it. And I believe that the arguments that we provided in the
23 Surreply were in response to the arguments raised in the Reply brief, and are
24 therefore appropriate.

25 JUDGE ARBES: Counsel, on page 44 of the Petition, at the

1 bottom, it does appear that Petitioner made an argument regarding a
2 combination with Mattavelli for the autonomously adjusting limitations.

3 MR. THOMPSON: I would have to look at that. I don't have it in
4 front of me.

5 JUDGE ARBES: Okay.

6 MR. THOMPSON: But I do know that there was a statement in
7 the initial Petition, and I can refer to -- I'm afraid I can't put my hands to it.
8 No, I do have it. Page 43 of the Petition, which says that Carmel teaches
9 adjusting playback as mentioned in the Surreply pages 3 and 4.

10 JUDGE ZECHER: But I'm just going to reiterate what my
11 colleague said. At the bottom of 44, it says, additionally, Mattavelli also
12 teaches autonomously adjusting the playback of received multimedia
13 objects. So it seems to be an additional argument as to how Mattavelli
14 accounts for that limitation.

15 MR. THOMPSON: If that is how -- I would disagree, but I
16 understand your point, Your Honor.

17 JUDGE ZECHER: Okay.

18 MR. THOMPSON: During the Petitioner's opening arguments,
19 they tried to make much of comments made by the expert, Mr. Goldman, in
20 related proceedings. And I would submit that, as pointed out during the
21 questioning, arguments made during a 101 briefing, or even a 103 -- or
22 excuse me, or an obviousness briefing in another proceeding about another
23 patent, are not necessarily readable against the '849 Patent and its
24 terminology here.

25 Claimed terms used in one patent don't necessarily mean the same

1 thing as in another patent. And it's not fair to say, aha, you used the word
2 playback in a declaration relating to a claim in an unrelated patent that just
3 happens to be the same patent that is applied here, is not the same thing as
4 playback in the context of the '849 Patent. And there needs to be a linking
5 argument, which is missing from the Petitioner's presentation, I would argue.

6 JUDGE ZECHER: Counsel, can I ask you about Mr. Goldman's
7 declaration that was submitted in the re-exam where he talks about the
8 Carmel patent? What weight should we accord his testimony there?

9 MR. THOMPSON: I don't think that it should be accorded much
10 weight at all because it is relating to a different patent, in a different context,
11 with different issues that were being considered. Just taking his words out
12 of context and, excuse me, plunking them down in the middle of this
13 proceeding on a different patent, with different claim terms, with different
14 issues and different constructions, I don't think is an appropriate use of his
15 declaration in that reexamination.

16 JUDGE ZECHER: Well, I understood Petitioner relied on this
17 declaration more for what it said about the Carmel patent that was being
18 applied here in the Petition. And of course, he's explicitly discussing that
19 Carmel patent and what it discloses. So are you saying that we can't accord
20 that testimony any weight even though that's the same patent being applied
21 here as part of the obviousness combination?

22 MR. THOMPSON: I would say that Your Honors will accord it
23 the weight Your Honors believe appropriate. But I don't think it should be
24 given as much weight as Petitioner would propose. Because although they
25 are the same patent that was being applied as a reference here, it was being

1 applied -- it was being considered in a different context with respect to the
2 reexamination proceeding there.

3 And so, the way the issues that were being considered and
4 discussed impacted the terminology that was being used. And just because a
5 stray word here and there might happen to fit Petitioner's strategy, doesn't
6 mean that it's necessarily conclusive and binding on this Court, in this
7 proceeding, in this Board with respect to the '849.

8 JUDGE ZECHER: Okay. Putting aside what we accord it, which
9 of course as a trier of fact we can do as we deem appropriate given that
10 there's adequate support, do you disagree with their characterization of the
11 Carmel patent or Mr. Goldman's characterization of that patent in the re-
12 exam dec?

13 MR. THOMPSON: It depends on which characterization you're
14 referring to.

15 JUDGE ZECHER: Let's talk about the replay rate for Claim 8 and
16 how it's equal to the assigned data rate of the stream. It's paragraph 41.
17 Paragraph 42, I think is the relevant paragraph. Is there something in those
18 two paragraphs that you would dispute or --

19 MR. THOMPSON: I would --

20 JUDGE ZECHER: -- would effectively undermine what Mr.
21 Goldman's saying about the Carmel patent?

22 MR. THOMPSON: I would say, first, I wouldn't dispute what Mr.
23 Goldman said, but because again, in the context of the '473 Carmel Patent,
24 they were certainly accurate. The question is the applicability of the three
25 rates in the Carmel patent to the playback rate here, and trying to parse out

1 the replay rate argument that he was making, which I don't think is
2 appropriate because again, it's a replay rate, not playback as in the context of
3 the '849 Patent.

4 JUDGE ZECHER: I think he was tying the replay rate to what
5 Carmel said about Claim 8.

6 MR. THOMPSON: And that's Claim 8 of the Carmel patent.

7 JUDGE ZECHER: Of the Carmel patent. But just to put some
8 kind of comparison between what a replay and a playback would be. Do
9 you dispute that comparison they're claiming?

10 MR. THOMPSON: I dispute that comparison. I don't think it's an
11 appropriate or fair reading. Because again, different claims, different
12 patents, different meanings, different issues.

13 JUDGE ZECHER: Okay. So it's just your argument, it's a
14 different record?

15 MR. THOMPSON: Yes, Your Honor.

16 JUDGE ZECHER: Okay.

17 JUDGE ARBES: Counsel, can I ask you as well, is replay rate a
18 term of art in video processing?

19 MR. THOMPSON: I'm not aware of it being a specific term of art
20 outside the context of the Carmel patent. I haven't seen it used as a term of
21 art outside the Carmel patent. I'm not representing that it's not, I'm just
22 saying I'm not aware of it one way or the other.

23 JUDGE ARBES: There's nothing in the record you would point us
24 to?

25 MR. THOMPSON: Nothing in the record I could point you to. I

1 believe I've actually addressed all of the points that I wanted to make during
2 the -- based on the Petitioner's immediate initial presentation. So unless
3 Your Honors have further questions, I'll just do as my law professors told
4 me, to sit down and shut up.

5 JUDGE ZECHER: I don't have any further questions.

6 JUDGE HOFFMAN: Nothing further from me, thank you.

7 MR. THOMPSON: Your Honor?

8 JUDGE ARBES: No, thank you.

9 MR. THOMPSON: I'll sit down and shut up.

10 MR. CHEN: Your Honors, I'll just make three points. The first
11 one is as I stated, that the adjustment of selection and playback, they can be
12 different as the example that I provided shows, which is you can select a
13 multimedia object from a different server and not affect the playback, not
14 adjust the playback.

15 But how Carmel teaches adjusting selection, is that you're
16 adjusting selection of a multimedia object that has a different quality level.
17 And by doing that, you are then adjusting the playback as well. That results
18 in adjusting the playback because it's at a different bit rate.

19 And we see in Slide 14 here, the Patent Owner has stated that
20 adjusting the visual frame is adjusting playback. Well, then adjusting the
21 data rate is also adjusting playback. There can be no dispute about that.
22 And when you adjust the data rate, as we've shown on Slide 17, Mr.
23 Goldman states that when you adjust the data rate, that that means you're
24 going to adjust the playback or replay rate as well.

25 Again, Claim 8 makes it really clear that playback is directly tied

1 to the replay rate, which is generally equal to the data rate. So Carmel
2 teaches that autonomously adjusting said selection and playback. That's the
3 first point that I want to make.

4 JUDGE ZECHER: Mr. Chen, how would you respond to Patent
5 Owner's argument? Go back to that. What weight should we accord this
6 testimony from Mr. Goldman in the re-exam proceeding? He claims
7 different record, different issues, not much weight.

8 MR. CHEN: It's the exact same reference, it's the Carmel
9 reference, it's sworn testimony. So everything that he said about Carmel
10 should be his position with respect to Carmel. Your Honor is correct. We're
11 using his declaration for what Carmel teaches. That's what we're using his
12 declaration for, and it should be accorded the appropriate weight, which is
13 he submitted this under sworn testimony.

14 JUDGE ZECHER: And then also maybe drill down, he seems to
15 dispute that the replay rate is not akin or commensurate scope, let's say, with
16 a playback rate. How would you respond to that?

17 MR. CHEN: Yes. I think that's directly contradicted by what Mr.
18 Goldman has stated in his declaration. And specifically Claim 8, which ties
19 the playback to the replay rate. Playback, the data stream responsive to the
20 indices of the files at a replay rate, generally equal to the data rate. And we
21 saw on Slide 14 here that the data rate can be a multimedia object parameter.
22 That's the first point. The second point that I want to make is actually on
23 Slide 15.

24 JUDGE ARBES: Counsel, just one moment, if you could go back
25 to Slide 14. The sample rate that appears in column 3 there, is it your

1 position that that is the same thing as replay rate?

2 MR. CHEN: That's the data rate. That's like the bit rate or the
3 encoded rate. So that determines like a particular quality level. That could
4 be one aspect of quality, is the bit rate or the encoded rate. So that's the data
5 rate. And so when you're changing the data rate, then in Carmel, you'll be
6 changing the playback rate as well as Carmel teaches through Claim 8 and
7 what Mr. Goldman stated.

8 JUDGE ARBES: Which is the same as the replay rate in --

9 MR. CHEN: Correct. That's correct, Your Honor. So the second
10 point is that Patent Owner relies heavily on this passage which is a decision
11 on whether to delay playback or begin playback. But as I stated earlier, a
12 decision on whether to delay or begin playback is irrelevant to adjusting
13 playback after a stream has already started.

14 So the claim language recites playing back by selecting a plurality
15 of said multimedia objects that reflect available network bandwidth. And
16 then the subsequent step is autonomously adjusting said selection and
17 playback. So the playback has already started, the stream has already
18 started, and then you're adjusting that.

19 So this passage right here has nothing to do with adjusting the
20 playback. It's a decision on whether to begin or delay the playback. Your
21 Honors have any questions on that? I'd be happy to answer.

22 JUDGE ARBES: Just one question about timing. I believe you
23 argued in your Papers that adjusting the playback does not have to occur
24 after the objects are received. Why is that an appropriate reading of the
25 claim language? Doesn't playback imply that I have something to play back,

1 and that I have the data?

2 MR. CHEN: Yes. Your Honor, I'm not quite sure if we put it in
3 that way. What I would say is that what Carmel teaches and what the claims
4 are also covering, is the situation where by selecting a particular multimedia
5 object based on available network bandwidth, that by selecting a particular
6 quality of multimedia object, that the playback is also going to be adjusted.

7 So of course, you need to still play back, that multimedia object
8 needs to be downloaded before it's played back. And that's what Carmel
9 shows in Figure 6B and the accompanying written description, right? You
10 are going to play it back, select the particular quality level, you read it, you
11 decode it, and then you play it back.

12 So you are selecting a particular quality level, but that doesn't
13 satisfy the playback yet. You still need to actually then play it back. But
14 because it has a different quality level, if you're adjusting, you got by
15 selecting a different quality level then the playback is also going to be
16 adjusted as well.

17 JUDGE ARBES: Doesn't that imply that the adjustment of
18 playback can take place before the playback? Let's say we run through the
19 figure from the top, and I get to the first branch, the rate is too low, and I'm
20 going to choose a lower video level. That's the adjustment --

21 MR. CHEN: That's the adjustment.

22 JUDGE ARBES: -- in your view? Okay. So in your view, I'm
23 adjusting the selection, I'm also adjusting the playback, but that actual
24 playback of the new lower level slices, that doesn't occur until I loop around
25 and actually get again to the output data step?

1 MR. CHEN: That's correct, Your Honor.

2 JUDGE ARBES: So I guess, why is it a reasonable reading of the
3 claim that I can adjust playback well before I actually do the playback?

4 MR. CHEN: Well, I would say you're not. You're adjusting at the
5 point in which playback occurs, right? You're adjusting by choosing the
6 correct multimedia object based on available network bandwidth. So there's
7 an adjustment in terms of what multimedia object, what quality level
8 multimedia object you are selecting.

9 JUDGE ARBES: Adjusting the selection.

10 MR. CHEN: You've adjusted the selection at that point.

11 JUDGE ARBES: Yes.

12 MR. CHEN: But that multimedia object hasn't been played yet
13 until you get to the playback step, right? But it is going to be a different
14 quality level than the playback will be adjusted.

15 JUDGE ARBES: So when exactly does the adjustment to the
16 playback occur then?

17 MR. CHEN: It occurs when the -- I'm not sure that the claim
18 language -- that necessarily matters for the claim language, but if Your
19 Honors have a distinction that you think matters, I'd be happy to address
20 that. You are choosing a different quality level after you run through the
21 steps at the bottom of Figure 6B.

22 So there's an adjustment, but the adjustment is in terms of what
23 multimedia object quality level you're selecting. And then when you get to
24 the playback step, the playback is going to be affected by what level of
25 multimedia object you've selected.

1 JUDGE ARBES: Well, Patent Owner has made the argument that
2 there is nothing in Carmel about adjusting the playback of the objects after
3 those objects have been received. And in order to adjust playback, I have to
4 start playing back, and then I make some sort of adjustment to the
5 -- adjustment to the stream after the objects have been received.

6 MR. CHEN: Right.

7 JUDGE ARBES: Why is that not a natural or logical reading of
8 how the claim language is structured here, to say that I have to adjust said
9 selection and playback?

10 MR. CHEN: I think that reading directly contradicts the claim
11 language. The claim language recites adjusting said selection and playback.
12 So we have to look at the antecedent basis of the said selection and
13 playback. The first time is playing back received multimedia objects.

14 And how is it played back? It's by selecting the plurality of said
15 multimedia objects that reflect available network bandwidth. Those two
16 things are tied together by the claim language. The claim language shows
17 that those two things have a relationship.

18 JUDGE ARBES: I guess maybe there's some confusion because
19 the overall step is playing back, and then we have the by and the three
20 clauses. But there is no actual decode the objects and show them on the
21 screen.

22 MR. CHEN: That's correct, Your Honor. It says utilizing
23 optimized decoding process to maintain a quality playback. But yes, I
24 believe you're right, Your Honor. You're right, Your Honor. And if it's
25 helpful, we can also look at the other independent claims as well, right?

1 It's playing back by doing two things, by selecting a plurality of
2 said multimedia objects that reflect available network bandwidth. And then
3 the further step of autonomously adjusting said selection and playback
4 according to the multimedia object parameters, supply those path
5 identification.

6 And then it's also by utilizing optimized decoding processes to
7 maintain quality playback. But there's the said selection and playback. We
8 cannot ignore the antecedent basis of that. Okay. So if Your Honors do not
9 have any further questions, the third point that I was going to make is that
10 Your Honors are correct, that in our Petition we have set forth the alternative
11 mapping of Carmel and Mattavelli.

12 The exact page numbers that Your Honors cited, and Patent Owner
13 cited to, I think it was pages 14 to 17 of Patent Owner's Surreply. We don't
14 see anything on those pages where the Patent Owner argued that there's a
15 lack of motivation to combine Carmel and Mattavelli, it's simply not there.

16 It's not an argument that they raised until today, Your Honor. I
17 think they forfeited it. In any event, our expert has set forth multiple
18 detailed rationales for why Carmel and Mattavelli, why there would be a
19 motivation to combine them with a reasonable expectation of success. I'd be
20 happy to answer any other questions that Your Honors have.

21 JUDGE ARBES: Thank you, Counsel.

22 MR. CHEN: Okay. Thank you.

23 MR. THOMPSON: In response, I would just like to take another
24 look as we've seen, perhaps somewhat all too much, is Figure 6B of the
25 Carmel patent in which we've discussed during the Petitioner's presentations,

1 is found on Slide 6 of the Patent Owner's Demonstratives.

2 Refers to Carmel Figure 6, which is cited in the Surreply on page
3 3, and referring to language in the specification of Carmel at column 10, line
4 64 through column 11, line 22, which is found on pages 17 and 18 of the
5 record. I think Your Honors hit the right point that there is no adjustment of
6 the playback because all this shows in, and this is the reference that the
7 Petitioner relies on to show adjusting of the playback, is it shows in the
8 lower right hand corner that you choose the audio level with choose being a
9 synonym for select, you choose the audio level, depending on whether it is
10 -- the rate is too high or too low, and then you loop back around.

11 You don't change the playback once it starts. Now, the sole basis
12 that Petitioner has offered for saying that adjustment can happen at any time
13 other than after the playback, is in the language of the claims, supposedly, in
14 which they rely on the word, said.

15 But playback there is not -- I'm looking now at just for example,
16 Claim 7, which is on Slide 4, which is in the -- of the '849 Patent. That
17 playback is referred in the last large paragraph. And is the said playback to
18 which the word said playback refers. And it doesn't include anything in
19 there joining it to the selection process.

20 And there is nothing in the record or in the claim itself, which
21 would suggest that the selection and adjustment have to be combined or
22 could be combined as meaning the same thing. As I said during my opening
23 argument, if you read the term adjustment to me or include selecting, then
24 you're reading the claim as saying autonomously it's selecting and selecting,
25 and that just makes no sense. So with that, unless the Court has further

1 -- the Board has further questions, I would again, sit down and be quiet.

2 JUDGE ZECHER: Counsel, can you go to your next slide? I
3 think you cited to it in your initial case chief as an example. Yes. Of
4 adjusting playback where you could delay it or it begins immediately. How
5 do you respond to Petitioner's position that based on the way the claim is
6 formatted, playback started -- you do it based on the selection and then you
7 adjust it accordingly. So this whole notion of delaying it or playing back
8 immediately wouldn't be an adjustment of playback?

9 MR. THOMPSON: Well, I would disagree with that strongly
10 because it specifically shows that the playback is adjusted by delaying it or
11 not delaying it.

12 JUDGE ZECHER: Well, it doesn't use the word adjust, correct?
13 In this section?

14 MR. THOMPSON: It doesn't use the word adjust in that
15 paragraph. No. But it says that the object player may choose to either delay
16 playback until the multimedia object buffers in memory have filled or may
17 begin playback immediately. And that that is a decision which affects and
18 adjust the playback. We don't have to use the same words in the
19 specification as we use in the claims.

20 JUDGE ZECHER: Well, but doesn't a claim say adjusting said
21 selection and playback according to the multimedia object parameters and
22 supplied host path identification? How do we get those later aspects of the
23 claim in this section here?

24 MR. THOMPSON: We have the latency of requests for
25 multimedia objects or the number of multimedia objects that can be stored in

1 memory at once, which is in that -- at the very end of that paragraph.

2 JUDGE ZECHER: What's the exact claim language again? I'm
3 sorry.

4 MR. THOMPSON: The starting line 55 refers to the latency of
5 requests for multimedia objects or the number of multimedia objects that can
6 be stored in memory at once.

7 JUDGE ZECHER: So that equates with the multimedia object
8 parameters that's in the claim, is what you're saying?

9 MR. THOMPSON: Yes, Your Honor.

10 JUDGE ZECHER: Okay.

11 JUDGE ARBES: And just to make sure I understand Patent
12 Owner's position, the only way to adjust playback is to already have the
13 objects that you are making an adjustment for, right? I can't make the
14 adjustment to playback before I do the playback of those objects?

15 MR. THOMPSON: Well, until they're received then you can
16 adjust the playback before they're displayed, but you can't adjust them before
17 they're received.

18 JUDGE ARBES: Yes. I see.

19 MR. THOMPSON: Does that make sense?

20 JUDGE ARBES: Yes. And I guess maybe some of the confusion
21 regarding the claim language, you've taken the position that the playing back
22 step has the by clause and then the three separate clauses.

23 MR. THOMPSON: Correct, Your Honor.

24 JUDGE ARBES: That's how the playing back occurs. But there is
25 no actual step there of decoding and showing the video on the screen. So it

1 says playing back by doing these three things, but it's kind of missing
2 something there, right?

3 MR. THOMPSON: Well, the word decoding is absent from the
4 claim. Yes. I don't know that it's required because playback would include
5 reference to decoding it, because if it's coded, you can't replay it back.

6 JUDGE ARBES: I see.

7 MR. THOMPSON: But I don't think it's necessarily recited
8 separately. And it's certainly not -- those words do not appear in the claim.

9 JUDGE ARBES: I see. And I cannot play back received
10 multimedia objects by the multimedia player until they are actually
11 received?

12 MR. THOMPSON: That's correct. They have to have them before
13 you can show them. Otherwise, you'd be a lot of fun at a racetrack being
14 able to predict the future. I have nothing further to add or to rebut my
15 learned opponent. So again, I will sit down and be quiet.

16 JUDGE ARBES: Thank you, Counsel.

17 JUDGE ZECHER: Thank you.

18 MR. THOMPSON: Thank you, too.

19 JUDGE ARBES: We thank both parties. A final written decision
20 will be issued in due course. And that concludes the hearing for today.

21 (Whereupon, the above-entitled matter went off the record at 2:26
22 p.m.)

IPR2025-00775
Patent 10,771,849 B2

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