

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

IRIUSRISK, INC.,
Petitioner,

v.

THREATMODELER SOFTWARE, INC.,
Patent Owner.

IPR2023-00656
Patent 10,713,366 B2

Record of Oral Hearing
Held: July 10, 2024

Before KEVIN F. TURNER, JOHN D. HAMANN, and
STEPHEN E. BELISLE, *Administrative Patent Judges*.

IPR2023-00656
Patent 10,713,366 B2

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The above-entitled matter came on for hearing on Wednesday,
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P R O C E E D I N G S

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JUDGE BELISLE: Good afternoon and welcome to the Patent Trial Appeal Board. I am Judge Belisle and I am joined remotely by Judges Turner and Hamann. This is the oral hearing, as you just heard, in IPR 2023-00656 involving U.S. Patent No. 10,713,366 B2. Petitioner is IriusRisk, Inc., and Patent Owner is ThreatModeler Software, Inc. The court reporter will prepare the transcript for this hearing.

Counsel, please introduce yourselves beginning with counsel for Petitioner.

MR. MIDDLETON: Good afternoon, Your Honors, Matthew Middleton from DLA Piper for Petitioner IriusRisk, Inc. With me today, I have Brent Yamashita and Blake Jackson also from DLA Piper and counsel of record for IriusRisk. Also with me I have two summer associates from DLA Piper, Samara Salaheddine and Frances Sutton. And last but not least, I have Stephen de Vries who is the founder and CEO of IriusRisk.

JUDGE BELISLE: Thank you.

Patent Owner?

MR. D. JACKSON: Good morning, or good afternoon, I should say. I apologize. Yeah. This is Don Jackson for the Patent Owner ThreatModeler Software, Inc. And with me on the call today is client representative Nikunj Nagalia from ThreatModeler.

JUDGE BELISLE: Thank you. We are conducting this hearing by video today and we'll begin with some general guidance. First, if you encounter technical difficulties during the hearing please let us know or

1 contact our hearings team members who provided you with contact
2 information.

3 Second, for the benefit of the panel and the court reporter, please
4 speak clearly into your microphone and identify yourself each time you
5 speak. Please do not speak when others are speaking and mute yourself
6 when you are not speaking.

7 Third, we have the entire record including the parties' demonstratives.
8 We remind counsel that demonstratives are not evidence and are used only
9 as visual aids. Any arguments and evidence that are not in the record will
10 not be considered by the panel in rendering the final decision.

11 When referring to demonstratives, papers or exhibits please do so
12 clearly and explicitly by slide or page number. Please pause a few seconds
13 after identifying the page you want us to go to give us time to find it.

14 Finally, please do not interrupt the other party while that party is
15 presenting its arguments. If you do have an objection, please raise it during
16 your argument.

17 Pursuant to our hearing order, each party has 60 minutes to present its
18 argument. In addition, one of Petitioner's counsel is participating in this
19 hearing as a LEAP practitioner and so we have granted Petitioner an
20 additional 15 minutes of argument time for a total of 75 minutes. Each party
21 may reserve time solely to rebut the opposing party's arguments. You may
22 not use rebuttal to address an issue for the first time during the hearing.
23 Petitioner will proceed first because it bears the burden of proving
24 unpatentability.

1 I will keep time. I will try to provide you updates on the remaining
2 time during the hearing, but please feel free to ask about your remaining
3 time if you have a question about that.

4 Petitioner, how much time, if any, do you wish to reserve for rebuttal.

5 MR. MIDDLETON: I would like to reserve 15 minutes for rebuttal,
6 Your Honor. Thank you.

7 JUDGE BELISLE: Fifteen minutes. Okay, you may begin.

8 MR. MIDDLETON: Thank you, Your Honor. So, starting in right
9 with Slide 2, this shows a roadmap of what I plan to argue today starting
10 with a technology overview and a discussion of the '366 patent and then
11 moving to claim construction and finally discussing the grounds.

12 So, on Slide 4, this slide shows a brief technology overview of threat
13 modeling. Threat modeling at its core is really a diagramming exercise.
14 You just diagram what can go wrong for a specific system that you want to
15 analyze. The diagram on Slide 4 shows one example of a diagrammed threat
16 model that was actually drawn by Petitioner's expert, Mr. Robert Hurlbut.
17 The diagram system here is a bank, and one example of something that
18 could go wrong at a bank is an attempted robbery. And that attempted
19 robbery is shown on the diagram. And this attempted robbery is your threat.

20 You could also have a cyber event or a cyberattack or a natural
21 disaster or an environmental event as other examples of things that could go
22 wrong at a bank. So, threat modeling is really just capturing and visualizing
23 a set of information. A threat model doesn't determine what that information
24 is and a threat model doesn't determine the threat or the system components.
25 It just diagrams them.

1 A threat model can also visualize solutions to problems, sometimes
2 called mitigations, but a threat model doesn't actually solve any of those
3 problems. Again, it's just visualizing those problems.

4 So, moving to Slide 5, it's this simple process of threat modeling that
5 exactly -- is exactly what the '366 patent claims. The alleged invention of
6 the '366 patent is the ability to import diagrams created by a third-party
7 software application such as Microsoft Visio.

8 The process essentially converts a Visio diagram into a file type that's
9 readable by whichever threat modeling software the user is using. And to be
10 clear, Visio is a Microsoft product. ThreatModeler did not invent Visio and
11 the '366 patent does not claim to have invented a novel third-party software
12 application. And it's really this ability to import -- it's important to note that
13 this ability to import a drawing into a drawing tool isn't new and the '366
14 patent even admits that this process isn't new.

15 In the background of the technology section of the '366 patent, that's
16 Exhibit 1001 at Column 2, Lines 47 through 54, the '366 patent states that,
17 Software exists for converting a diagram file of one type to another type of
18 diagram though not into a threat model. So, the '366 patent then lists
19 Lucidchart, SmartDraw and Edraw Soft as three software programs that will
20 import diagrams.

21 So, the invention that the '366 patent claims is really just taking threat
22 modeling, which is well-known in the art and combining it with importing
23 diagrams, which is also well-known in art. There's really nothing novel
24 about this because it really just combines two well-known elements of the
25 prior art.

1 So, Slide 6 and also Slide 7 shows the claim limitations. I'm not
2 going to read through every single limitation, but just conceptually at a high
3 level you have a threat modeling program with native threats and threat
4 model components and then you have your Microsoft Visio product, your
5 third-party software application. And you want to import that Visio
6 diagram, that Visio file, into your ThreatModeler program and the mapping
7 file tells the program what each piece of that Visio diagram means and then
8 the end result is that you have a threat model that a person can look at with
9 those Visio diagram components in it. And then the claim also recites
10 generating a report.

11 And it's important to note here there are a lot of limitations here, but
12 only a few limitations on the screen are actually relevant for today's
13 discussion and the arguments today. So, for Independent Claims 1, 8 and
14 16, the only disputed limitation in ground one is the word threat that's recited
15 in limitation 1B. And for ground two with the Zheng and Baker references,
16 it's the mapping file term in limitation 1C that's really important.

17 Excuse me. So, moving to Slide 9 and moving into claim
18 construction, the parties have competing claim constructions for two terms,
19 threat and mapping file. And starting with threats on Slide 11, and I don't
20 want to spend too much time on this because the claims are invalid under all
21 grounds under either party's definition. Petitioner has put forth the definition
22 it believes is correct, but both parties' definitions are essentially the same.

23 One important point to note, however, is that neither party's definition
24 of threat requires any level of specificity of the threat. So, for example, a
25 cyber event is one or more potential events following Patent Owner's
26 definition, a cyber event is one or more potential events that if they occur

1 can cause adverse effects to a target system. And then an environmental and
2 an accidental event are also one or more potential events that can cause
3 adverse effects to a target system.

4 So, moving on to mapping file on Slide 13, the parties --

5 JUDGE HAMANN: Counsel?

6 MR. MIDDLETON: Yes? Yes, Your Honor?

7 JUDGE HAMANN: This is Judge Hamann. Just real quick, is there
8 any difference between undesirable and adverse effects?

9 MR. MIDDLETON: I can't -- I can't think of any difference, Your Honor. I
10 think they're about the same and that's why I said before that I think both are
11 the same. Both parties' definitions are essentially the same. Even if there
12 was a difference, Your Honor, I think that with whatever difference there is
13 it isn't necessarily important for the parties' dispute I think.

14 JUDGE HAMANN: Thank you.

15 MR. MIDDLETON: So, moving to Slide 13, the parties have
16 competing definitions for the mapping file term. Now, the core issue with
17 Patent Owner's proposed construction is that it imports limitations from the
18 claim which is improper per Federal Circuit precedent. The language Patent
19 Owner imported is highlighted in red on the slide and in the claim limitation,
20 and it really is reciting the main function of the mapping file that is claimed,
21 so what the mapping file is used for specifically in this claim.

22 This is improper per the Federal Circuit's Robotic Vision case where
23 the Court rejected a construction, at least in part, because that construction
24 would render a dependent claim redundant. There were other reasons to
25 reject that construction in Robotic Vision but one reason was also the
26 importation of the claim limitation.

1 Patent Owner's surreply argues that Robotic Vision applies only to
2 dependent claims but there's really no legal support for that. And the real
3 thrust of this portion of Robotic Vision that we're relying on, the real thrust
4 of it is that a limitation should not be construed in a manner that makes
5 another limitation redundant.

6 And if there is any doubt --

7 JUDGE BELISLE: Counsel, this is Judge Belisle. Let me just stop
8 you there. Does it really matter in this particular case? I mean, the
9 terminology being added to the Patent Owner's proposed definition is in the
10 claim. In fact, it's pretty much verbatim in the claim language. So, whether
11 we interpret mapping file to be a file or a file that correlates to threat
12 components, I mean, either way ultimately the claim has to be read such that
13 the file provides this correlation, correct?

14 MR. MIDDLETON: That's correct, Your Honor, and it does. It is
15 important for ground two in the Zheng and Baker combinations because
16 what Petitioner is arguing is that Zheng discloses a mapping file and that the
17 combination of Baker adds in the claim correlating aspect of that mapping
18 file. So, it becomes important for that because Zheng by itself doesn't
19 include the importation of third-party diagram components and that's really
20 where the Baker comes in in correlating those third-party diagram
21 components with native threat model components.

22 JUDGE HAMANN: All right. So, counsel, this is Judge Hamann
23 again. Does the -- I'm just looking at the construction Petitioner puts
24 forward for mapping file, does Petitioner rely on other representation?

25 MR. MIDDLETON: I'm sorry. I'm not sure I understand. What do
26 you mean by other representation, Your Honor?

1 JUDGE HAMANN: I think, if I'm understanding correctly, Petitioner
2 at least in the beginning of its proposed construction, is a file or other
3 representation. I'm not certain I know the bounds of other representation. Is
4 it --

5 MR. MIDDLETON: That's the --

6 JUDGE HAMANN: Does it matter in a sense? Is a file broad enough
7 or encompass the arguments that Petitioner has put forward as to the art?

8 MR. MIDDLETON: A file is broad enough as the word file is used in
9 the '366 patent. So, what the '366 patent says in the specification is that a
10 mapping file can be a file or it can be a database table or it can be any other
11 type of representation. Really what it's looking for is a type of file or
12 database or so on that correlates data from a source to a target. So, that's
13 what the Petitioner's construction of representation means there.

14 And it is a little bit important because Zheng's mapping file does use a
15 database table so it is a little bit distinct from maybe how a file, but the word
16 file is also used in the '366 patent as a little bit broader than just like literal
17 file.

18 JUDGE HAMANN: Thank you.

19 MR. MIDDLETON: And just to wrap up that discussion I had before,
20 if there was any doubt that the claims were applied to independent claims
21 Petitioner also cites the Fortinet v. Sophos case which comes to the same
22 conclusion as Robotic Vision except the claims are in the independent
23 claims.

24 So, another important point on this whole claim construction
25 discussion, though, is that Patent Owner did not act as its own lexicographer
26 in this case. There's no explicit definition of a mapping file found anywhere

1 in the specification or prosecution history of the '366 patent. And what that
2 means is that the term mapping file must be analyzed according to its plain
3 and ordinary meaning.

4 And a mapping file according to its plain and ordinary meaning is, as
5 Petitioner provides, a file or other representation that correlates data from a
6 source to a target. And that definition comes straight from Petitioner's
7 expert, Robert Hurlbut, who's on Slide 14 here. And Slide 14 has a quick
8 blurb on Mr. Hurlbut's extensive qualifications in threat modeling. It's not
9 overreaching to say that threat modeling is Mr. Hurlbut's life work -- life's
10 work here. Threat modeling is what Mr. Hurlbut does.

11 And Slide 15 shows a portion of Mr. Hurlbut's testimony stating that a
12 mapping file is a term of art that is well-known to a skilled artisan. So, the
13 evidence of record this is what -- that's what the evidence record shows.
14 Slide 16 shows Mr. Hurlbut's testimony in defining that well-understood
15 meaning of a mapping file as a file or other representation that correlates
16 data from a source to a target.

17 And then Slide 17 again confirming the same thing, the same
18 definition and that the overall purpose of a mapping file is to be used in that
19 manner. And I also --

20 JUDGE BELISLE: Counsel? This is Judge Belisle. So, just in your
21 proposed definition of mapping file compared to Patent Owner's, if the
22 source is the visual diagram components and the target is the third-party
23 software application, if -- is there any meaningful difference between the
24 two proposals? I mean, if we take out visual diagram components and third-
25 party software in Patent Owner's definition and just put in source and target
26 does that now equate to what your proposed definition is?

1 MR. MIDDLETON: So, just so I understand completely, Your
2 Honor, your proposal is -- would read a file or one or more tables that
3 correlates data from a source to a target, so kind of combining the two
4 definitions together?

5 JUDGE BELISLE: I'm just -- my question is simply yours says a
6 source to a target. They say from threat model components with these visual
7 diagram components.

8 MR. MIDDLETON: Yeah.

9 JUDGE BELISLE: -- where they correlate the threat model
10 components with the visual diagram components of this software. So, it
11 appears there's a source and a target in Patent Owner's definition. They just
12 identify what that source is and identify what the target is. But for that, is
13 there any meaningful difference between the two proposed definitions?

14 MR. MIDDLETON: No. Yeah, that's exactly right, Your Honor.
15 There's no meaningful difference between the two definitions except for the
16 one you identified.

17 JUDGE BELISLE: Okay, thank you.

18 MR. MIDDLETON: And that, kind of, highlights how Patent
19 Owner's definition is narrower than the plain and ordinary meaning and now
20 so it's really, you know, identifying a specific source and target that's
21 narrower than the well-understood meaning of what a mapping file actually
22 does, which is correlate source to a target.

23 So, moving to ground one and on Slide 19, this slide provides an
24 overview of the key issues for ground one, including one that Keenan is
25 prior art, and two, that Keenan discloses threats. And again, threats is the

1 only issue disputed for the claimed independent claims, Claims 1, 8 and 16,
2 and three, that Keenan discloses the dependent claims.

3 So, starting with the argument that Keenan is prior art on Slide 21,
4 Petitioner did make the explicit argument in the petition that Keenan is prior
5 art. That's found on Page 10 of the petition. So, on Page 10 Petitioner wrote
6 that Keenan was filed on April 19th, 2018 and issued on December 14th,
7 2021. Keenan claims priority to April 19th, 2017 and Keenan is therefore
8 prior art to the '366 patent under 35 USC Section 102(a)(2).

9 So, Petitioner did argue in his petition --

10 JUDGE BELISLE: Well, counsel let me stop you right there. So, the
11 petition says Keenan is prior art under 102(a)(2). In the petition what date
12 did Petitioner need to use of Keenan to establish Keenan as prior art?

13 MR. MIDDLETON: Petitioner needed to use the claimed priority
14 date to the provisional application, the April 19th, 2017 date.

15 JUDGE BELISLE: So, why didn't Petitioner need to establish that the
16 subject matter in the provisional was, in fact, the prior art to the challenged
17 claim?

18 MR. MIDDLETON: So, Petitioner had no burden to do so until
19 Patent Owner actually challenged the prior art status of Keenan, and that's
20 what the Innovative Growers and the Dynamic Drinkware case is that
21 Petitioner cites. So, just looking right on the slide here for Innovative
22 Growers, Innovative Growers says that the case law is actually very clear on
23 this point. It uses the term very clear. And Innovative Growers here
24 actually shows the exact same factual situation that we have here.

25 In that case, Petitioner asserted that a prior art reference, the Hutto
26 reference, was prior art in its petition the same way that Petitioner does here.

1 And the Patent Owner response challenged the prior art status for the first
2 time so the Patent Owner's response was the first challenge of the prior art
3 status of Hutto as unsupported by its provisional.

4 And then Petitioner's reply provided two claim charts to meet its
5 burden, and that's exactly what IriusRisk did here.

6 JUDGE BELISLE: So, counsel, this is Judge Belisle again. The case
7 you're citing, is it a precedential case of the Board?

8 MR. MIDDLETON: It's not a precedential case, Your Honor, but it
9 does --

10 JUDGE BELISLE: Well, let me ask, let me ask you to -- let's turn
11 back to Dynamic Drinkware. In Dynamic Drinkware did the Petitioner rely
12 on the provisional date initially to make its case?

13 MR. MIDDLETON: I'd have to look through the case again, Your
14 Honor, but what we do have here is the discussion exactly from Dynamic
15 Drinkware on the slide, the second bullet here, and that's the holding that
16 we're relying on here that Dynamic Drinkware did not have the burden of
17 producing evidence relating to the Raymond provisional application until
18 National Graphics made its argument regarding reduction to practice in the
19 Patent Owner response.

20 So, the conclusion there being as a result it was not necessary for
21 Dynamic to prove in its petition that Raymond was entitled to the filing date
22 of its provisional application. But that --

23 JUDGE BELISLE: So, Counsel, let me interject here. That sentence
24 has to be read in context. I'll submit to you then in the context of Dynamic
25 Drinkware the Petitioner did not rely on its provisional application date in its
26 petition because the date of the reference was before the provisional date of

1 the challenged patent. And at that time the Patent Owner came back, and
2 this is why your sentence that you've quoted on Slide 22 includes the words
3 reduction to practice.

4 In that case the Patent Owner came back with a reduction to practice
5 argument that antedated the date used in the petition for prior art. And at
6 that time, that's when Petitioner attempted to rely on its provisional date and
7 then the rest of Dynamic Drinkware plays out.

8 So, in Dynamic Drinkware the Petitioner did not rely on its
9 provisional date to make its case-in-chief in the petition for its initial burden
10 to produce evidence to show invalidity. It was only after a reduction to
11 practice argument was made. How does that compare to your case?

12 MR. MIDDLETON: It is a slightly different situation then, Your
13 Honor, but I would assert that the holding still stands and particularly with
14 how the Innovative Growers case analyzed the facts of Dynamic Drinkware.
15 And the facts of Innovative Growers is still on point to the situation here and
16 almost a one-for-one identical factual situation.

17 JUDGE BELISLE: Do you have any other cases other than
18 Innovative Growers that support your position?

19 MR. MIDDLETON: Those are the two cases that we cite, Your
20 Honor in our reply.

21 JUDGE BELISLE: Okay. Continue.

22 JUDGE TURNER: Counsel, before you get going again on this point,
23 this is Judge Turner. Just a quick question. I wanted to give you, sort of, a
24 hypothetical to this thing. Maybe this will help, maybe it won't, but let's
25 assume in this case that instead of, you know, a bunch of continuations, let's

1 say we had a continuation-in-part application there such -- and the
2 Petitioner, as in this case, just, sort of, cited the furthest back priority date.

3 Do you think that a Petitioner in that case if there was, like, a CIP in
4 there where it's clear that not everything actually is required to go back,
5 would Petitioner need to, you know, do some more than just bare assertion if
6 they were to rely on the earliest priority date in that case?

7 And I understand it's a hypothetical and it's not what you're dealing
8 with, but I'm -- what it, sort of, feels like Petitioner is saying, you know, I
9 can just, kind of, say, you know, that's fine. I'm going to rely on the priority
10 -- on the furthest priority date and that's sufficient. And I guess I'm saying,
11 well, what if there was a CIP in there? Does Petitioner have any burden or
12 can they just say, no, I'm going to rely on it until you challenge me.

13 MR. MIDDLETON: I'm not aware of case law specific to CIPs, Your
14 Honor, but I think based on the case law that I have in front of me I think
15 that what I would say is that Petitioner would have no burden in that first
16 instance until challenged by the prior -- challenged by Patent Owner in its
17 Patent Owner response, just following the law that I have in front of me for
18 Innovative Growers and the Dynamic Drinkware case, recognizing that
19 those situations are somewhat different.

20 JUDGE TURNER: No, I understand. I think it's consistent with the
21 position you're taking. I'll let you continue. Thank you.

22 JUDGE HAMANN: Counsel? Just so you can hear from all three of
23 us, this is Judge Hamann. I'm trying to understand something you said. You
24 said Petitioner has a burden or -- I can't exactly remember how you
25 characterized the burden, but I think we need to be careful here is Dynamic
26 Drinkware goes into the difference between burdens of persuasion, and

1 burdens of production. And I'm trying to understand. It seems like
2 Petitioner's argument in citing to Dynamic Drinkware is that the petition
3 met, or the Petitioner met its burden in the petition and that burden being the
4 burden of production by arguing that Keenan is prior art. Am I mistaken
5 about that? And if I am correct can you expand upon that?

6 MR. MIDDLETON: Yes. So, I think that's right, Your Honor.
7 Petitioner met its additional burden with that statement that Keenan is prior
8 art with that initial argument, and that following the Dynamic Drinkware
9 case where it's talking about the burdens here is we didn't have, you know,
10 Petitioner didn't have the burden of producing any evidence related to the
11 provisional until after Patent Owner made that challenge. So, that's when
12 the -- that's how the burden shifting framework worked there.

13 JUDGE HAMANN: So, Petitioner is saying it met its initial burden
14 of production in the petition by just arguing Keenan is prior art and then it
15 would have shifted to, the burden of production would have shifted to Patent
16 Owner, although, obviously, the burden of persuasion always remains on
17 Petitioner?

18 MR. MIDDLETON: That's right.

19 JUDGE HAMANN: Thank you.

20 JUDGE BELISLE: Counsel, Judge Belisle again. Is there a
21 presumption that a patent is entitled to its priority date?

22 MR. MIDDLETON: Your Honor, I believe there is not a
23 presumption. I don't have any law in front of me but my recollection is that
24 there isn't a presumption.

25 JUDGE BELISLE: So, if there's no presumption that the patent is
26 entitled to its priority date, and in this case Petitioner is arguing that the

1 reference is prior art based on its priority date, other than Innovative
2 Growers is there a reason why you believe Petitioner didn't have an initial
3 burden to prove its case that that prior art date which relied on the
4 provisional had to have the subject matter itself in order to anticipate the
5 claims?

6 MR. MIDDLETON: It would be just following the Dynamic
7 Drinkware and the Innovative Growers case, Your Honor.

8 JUDGE BELISLE: Thank you.

9 MR. MIDDLETON: But so even if Your Honors disagree that the
10 Petitioner timely argued that Keenan is entitled to its provisional application,
11 Petitioner did provide a secondary argument that Keenan is prior art by
12 arguing that the '366 patent is not entitled to its priority date.

13 So, Petitioner didn't challenge that the '366 patent's priority date in the
14 petition because Petitioner didn't have a reason to. All the prior art
15 references claim priority to before the effective date of the '366 patent so
16 there was no reason to challenge the '366 patent's priority date in the
17 petition.

18 But after Patent Owner challenged Keenan's status as prior art, as a
19 prior art reference in the Patent Owner response, Petitioner was entitled to
20 respond to that argument and Petitioner responded, one, by, you know,
21 arguing that Keenan is entitled to its provisional as it mentioned before and
22 also by with using this secondary argument attacking the '366 patent's prior
23 art status as a continuation in part. So, it's attacking its written description.

24 So, Petitioner made this showing by demonstrating that every claim of
25 the '366 patent requires a mapping file, but the disclosure for a mapping file
26 is found nowhere in the parent application. So, none of the claims of the

1 '366 patent find written description support in the '366 patent's parent
2 application and the result is that the earliest priority date of the '366 patent is
3 the filing date on August 15th, 2019 and Keenan's non-provisional filing
4 date is August 19th, 2018, which is -- or April 19th, 2018, which is a year
5 before -- over a year before the priority date of the '366 patent.

6 And I want to note, Your Honors, that the surreply included no
7 substantive arguments in response. The surreply didn't point to any
8 disclosures of a mapping file in the parent application, and Patent Owner
9 also did not object to any of Petitioner's evidence. The only argument the
10 surreply made is, again, that Petitioner's arguments was untimely.

11 But again, the petition had no reason to challenge the priority of the
12 '366 patent until after Patent Owner challenged Keenan's prior art status.
13 And Petitioner relies on the United Therapeutics case on this slide in
14 support. And the facts of United Therapeutics are a bit different, but we
15 believe the holding is analogous to the situation.

16 So, in that case Petitioner asserting public availability of a reference
17 which the Patent Owner challenged for the first time in the Patent Owner
18 response, and Petitioner then provided the evidence in its reply supporting
19 public availability. And the Board found that this evidence was not untimely
20 and the Federal Circuit affirmed.

21 And we have a similar situation here, and the arguments that are --
22 essentially the arguments in the petition are not inconsistent with any of the
23 arguments that the '366 patent is not entitled to its priority date because in
24 either sense, in either argument, Keenan is still prior art. Keenan is the
25 reference that we're relying on for anticipation. The grounds are exactly the

1 same. The only thing that -- nothing changes between those grounds in
2 either case.

3 JUDGE TURNER: Counsel, this is Judge Turner. I'm struggling.
4 You're saying it's not inconsistent but you've already, you know, at one point
5 you -- Petitioner stipulated to what the '366 patent was. You said here's the
6 priority date. I don't know how you can now say, well, it's not entitled to
7 that priority date and that's completely consistent with the petition. Those
8 feel like diametrically opposed to me. Maybe I'm missing something?

9 MR. MIDDLETON: Well, I understand that point is inconsistent
10 then, Your Honor, but what's consistent, what remains consistent is the
11 grounds that Petitioner relied on. And what may also remains consistent is
12 the fact that Petitioner always argued that Keenan is prior art and Keenan
13 always asserted in its initial petition that Keenan is prior art.

14 JUDGE TURNER: Sure. But now you're saying it's prior art because
15 the '366 doesn't deserve the priority that we originally said it did. I mean,
16 you -- this is a -- certainly you have to acknowledge it's a shift? Even if we
17 find that, you know, *United Therapeutics* says you can bring this in, this
18 does feel like a shift. It's certainly not when I read the petition what
19 Petitioner was originally envisioning was it?

20 MR. MIDDLETON: Yes, Your Honor, that's correct. There's
21 definitely a shift in the priority day so Petitioner did assume that, for just the
22 sake of argument, that the '366 patent was entitled to its priority day in the
23 petition. And so we -- that argument does change but what the -- what we're
24 -- again -- well right. Just going back to what I said before, what remains
25 consistent is the grounds and the fact that Keenan is prior art.

26 JUDGE TURNER: Thank you.

1 MR. MIDDLETON: So, moving on to the specific disclosures in
2 Keenan, Slide 25 --

3 JUDGE BELISLE: Counsel? Counsel, this is Judge Belisle. Before
4 we actually get into the meat of Keenan I just want to come back to your
5 assertion about the '366 patent not being entitled to its priority date. In your
6 reply where you make this argument, I'm not -- let's strike that. I want to
7 move back to Keenan itself.

8 You had indicated that in the reply that Petitioner explained how the
9 provisional satisfies written description requirements and the other
10 requirements of Dynamic Drinkware to be entitled to its original filing date.
11 But where in your reply do you actually explain why that is?

12 MR. MIDDLETON: Your Honor, we attach a -- we do attach a red
13 line between the specifications of the '366 patent and its parent application.
14 I can find the exact exhibit number for that, Your Honors, but the exhibit
15 number is 1018. And what it shows there is that the disclosures of a
16 mapping file were added to the '366 patent file application and that the core
17 argument being there that each claim has a written description. And each
18 claim claims a mapping file. All three independent claims claim a mapping
19 file, but the mapping file doesn't find written description support in any of
20 those -- in the parent application itself.

21 In the reply that argument is on Pages 10 through 12 in the reply, and
22 specifically looking at Page 11 of the reply starting with the word but. And
23 it's, like, But the parent application does not include any reference to a
24 mapping file used for correlating the threat model components with visual
25 diagram components of a third-party software application.

1 And then citing to the red line as well as a supplemental declaration
2 from Mr. Hurlbutt, and as well as Exhibits 1017 and 1019 to show that
3 different figures of the '366 patent -- and that these descriptions -- figures
4 and descriptions, are entirely new to the '366 patent.

5 JUDGE BELISLE: Counsel, what I'm trying to get my head around
6 here is you assert that, you know, this Keenan provisional supports or is
7 entitled to its date, but in the reply all the reply does is point to two or three
8 intensive claim charts and those claim charts reproduce huge portions of text
9 from the provisional and just stick it next to a limitation of the claim. Where
10 is the analysis as to how that language supports the claim language?

11 MR. MIDDLETON: We're talking about, I'm sorry if I
12 misunderstood, Your Honor. We're talking about the Keenan's provisional
13 application?

14 JUDGE BELISLE: Yes.

15 MR. MIDDLETON: Oh, I understand. So, the analysis is found
16 within those claim charts, Your Honor, and it is consistent with the analysis
17 that the Board has found acceptable in other cases, including in the
18 Innovative Growers case. And in the Innovative Growers case, the
19 Petitioner submitted two claim charts showing the analysis and how it's
20 comparison.

21 So, it also makes sense when you really remember what's actually the
22 burden is required here. Petitioner needs to show that the application was
23 carried forward from the provisional app to Keenan and what that
24 comparison -- what one of the comparison charts shows is that the Keenan
25 provisional has all the same figures as the Keenan non-provisional and the

1 Keenan provisional has an extensive application that was carried forward to
2 the non-provisional.

3 And the other thing we need to show is that Keenan's -- one claim of
4 Keenan's non-provisional is supported by the non-provisional and the other
5 claimed chart is used for the analysis to show that. So, the analysis shows
6 that claim one is, sort of, like any other type of claim chart. Claim one is
7 met by the specific disclosures that were found in the Keenan provisional.

8 And we also included a third chart that was the same Exhibit B chart
9 that we cited to as an exhibit to Mr. Hurlbut's report in the petition. And
10 Exhibit B is just a huge chart full of citations to Keenan's non-provisional
11 that shows how each element of the '366 pattern is met. And what we did
12 for -- to support the provisional application is also add citations to the
13 provisional application in addition to the non-provisional application. So,
14 that's really showing, again, how each application of the non-provisional
15 application was carried forward and supported by the provisional
16 application.

17 JUDGE BELISLE: Counsel, so Judge Belisle again. Just let's just do
18 one example. Exhibit 1022, which I think you were just referring to, Exhibit
19 B, in exhibit 1022 that's a 61-page long comparison. Can you show me what
20 you mean by analysis? What is -- show me any analysis in that chart as to
21 how those 61 pages of text pulled from the provisional support the claim
22 language recited in the left column?

23 MR. MIDDLETON: The analysis, Your Honor, is the comparison of
24 the claims to the recited language in the chart.

1 JUDGE BELISLE: So, it's the Board's burden to read all of that text
2 and find out whether, what in there supports the handful of words in the left
3 column of the limitations? Or is it Petitioner's burden to do that?

4 MR. MIDDLETON: No, it's not the Board's burden. It's Petitioners
5 burden, but Petitioner has met that burden through the showing here and as
6 well as -- well, part of the point also would be that the analysis of the '366
7 patent in the petition itself, the analysis of how Keenan meets the claims of
8 the '366 patent, cites to many of these same disclosures and has a lot of
9 analysis. And what this shows is each citation in that analysis is supported
10 by the provisional.

11 JUDGE BELISLE: Okay. So, and just to be clear, when you say
12 analysis you're referring to the copying of text from the provisional and
13 placing it next to the limitation of the claim? That's what you mean by
14 analysis, correct?

15 MR. MIDDLETON: Well, I'm referring to the analysis, in -- the last
16 sentence I said I was referring to the analysis in the petition itself, Your
17 Honor. I was actually referring to the specific explanations limitation by
18 limitation how the claim is met. So, it's just -- it's support. It's just this chart
19 shows that those citations are also supported by the provisional application.

20 JUDGE BELISLE: All right, thank you. Continue.

21 MR. MIDDLETON: So, moving on to the specific disclosures in
22 Keenan, Slide 25 shows an overview of the three core reasons that Keenan
23 discloses threats. And again, just to repeat, the only dispute for the
24 independent claims is whether Keenan discloses these threats. Moving to
25 the first reason Keenan discloses threats on Slide 26, the first reason is that
26 Keenan discloses the nature of a threat. Keenan discloses technical risk

1 measurement view 708 which uses color to represent different types of risk,
2 such as cyber, environmental, accidental, et cetera. So --

3 JUDGE BELISLE: Counsel, this is Judge Belisle. I think, you know,
4 we have about 20 minutes of your remaining primary argument time which
5 you can adjust if you need to, but here's what would help the Board. Not
6 just talking in terms of whether the art shows a threat or a threat in general,
7 whether or not the art -- because here we're talking about Keenan and we're
8 talking about anticipation. Whether or not Keenan discloses not just a threat
9 but a threat associated with a threat model component that is also correlated
10 through a mapping file to a third-party object. So, let's try not to just talk
11 about that it shows a threat. I would like to hear you explain how it
12 discloses that whatever threat you identified, that threat being associated
13 with a threat model component that's stored in a database that is then
14 mapped to a third-party object. So, that's the guidance I would provide you,
15 and you may continue.

16 MR. MIDDLETON: Thank you, Your Honor. Just to finish this slide
17 up and just the idea that Keenan discloses threats and it mentions the cyber,
18 environmental and accidental threats here and what would a -- I want to talk
19 a little bit also about what a POSITA would understand that given that
20 analysis of risk -- given analysis of risk a POSITA would understand that
21 risk is a function of threats and that threats are underlying that disclosure of
22 risk.

23 So, for Your Honor's question about how this is all connected, I would
24 refer to the disclosures in the petition, specifically like Keenan discloses
25 those threats and then the specific threat model components are the assets

1 that Keenan cites. So, the assets that are part of the information system in
2 Keenan.

3 And then Keenan discloses a mapping file, and I want to get the exact
4 cite for Your Honor, and I believe the cite is Column 18, Lines 36 through
5 51 where Keenan begins to explain mapping those specific threats to a -- that
6 those models -- sorry, Your Honor, mapping imported threat model
7 components from a third-party software application and specifically Keenan
8 mentions Visio as part of those as one application that can be imported in.

9 And Keenan does exactly what the '366 patent claims to do there. It brings
10 in those third-party software applications and it correlates the threat model
11 components, the assets, with the imported third-party diagram components.

12 And it uses -- Keenan uses the term map, a preset map, so the map is
13 preset. It is predefined. It's the mapping file, and the mapping file can be
14 preset as a file itself or as a table or other representation. And that puts those
15 together and in a way that meets the claims.

16 And what Keenan's modeling there, why Keenan is doing all this in
17 the first place is because it has what it discloses as risk analysis and threat
18 analysis. So, this, this -- that's what -- and that's, sort of, where the
19 understanding of a threat comes in and it's just why Keenan is doing this as a
20 whole, it's modeling. Keenan is modeling risk. And when a person of
21 ordinary skill in the art sees risk, the person of ordinary skill in the art
22 understands that there are threats that underlie those risks.

23 JUDGE BELISLE: Counsel, this is Judge Belisle again. Is Petitioner
24 making this -- so this is an anticipation by Keenan. Is Petitioner making an
25 argument of anticipation based on the express disclosure of Keenan or based
26 on inherent disclosures of Keenan?

1 MR. MIDDLETON: Based on the express disclosure of Keenan,
2 Your Honor, so it's not just based on -- anticipation is not just a -- and I
3 know this was also in the Board's Institution Decision, but anticipation is not
4 just a word for word test. You know, it doesn't -- Keenan doesn't use the
5 exact same words as the '366 patent might use, but what a person of ordinary
6 skill in the art understands reading those words is that threats are expressly
7 disclosed because risks are a function of threats. And because of Keenan
8 discloses those natures of a threat in the cyber, environmental and
9 accidental.

10 JUDGE BELISLE: So, to be clear, Petitioner is not making an
11 inherent anticipation argument in this case --

12 MR. MIDDLETON: Right --

13 JUDGE BELISLE: -- with respect to Keenan?

14 MR. MIDDLETON: Yes, Your Honor. Petitioner did not argue
15 inherency in the petition.

16 JUDGE BELISLE: So, to move forward from there let's -- I would
17 like for you to identify a threat disclosed by Keenan and then show me
18 where that's associated with a threat model component and stored in a
19 database.

20 MR. MIDDLETON: Understood, Your Honor. So, one threat that
21 might be disclosed in Keenan could be the specific threat here, and that's the
22 European windstorm model that Keenan refers to, so just as one example of
23 a specific threat. Some other examples of threats that could be disclosed are
24 the cyber threat, the environmental threat or an accidental threat and those
25 are associated with specific assets.

1 And what those assets could be really depends on the application
2 architecture. The assets are the threat model components. They could be
3 almost anything. So, for a European windstorm model and this is the threat
4 model component could be, maybe it could be all of Europe. It could be a
5 specific country. It could be a specific neighborhood. It just depends on
6 what you're trying to model in that scenario.

7 So, the specific threat, the European windstorm model, is associated
8 with the asset that is being protected or being analyzed, which in any case is
9 the, is the representation.

10 So, another example for, like, a cyber event, I mean, you could have a
11 threat model component, an asset that is the laptops used in your
12 organization. And the threat there could be cyber threats.

13 JUDGE BELISLE: Counsel, so if I may? There's a lot of could's in
14 what you've been saying. What I'd like is citations to Keenan as to where it's
15 expressly disclosed what you're telling me.

16 MR. MIDDLETON: So, understood, Your Honor. So, I have a
17 citation here on the slide, Exhibit 1004, 9, 42 through 47, the Column 9,
18 Lines 42 through 47 and that's where Keenan starts referring to the European
19 windstorm model. And then what else we would be looking for, I would
20 also cite to Figure 7 of Keenan. And Figure 7 of Keenan shows the palette
21 view and where -- and that's where Keenan can really identify the threat that
22 is associated with a specific asset. And so an asset might be represented in
23 Figure 7 as one of those shapes, and an asset is represented in as one of the
24 shapes and then the Keenan is the nature of the threat again is associated
25 with one of those shapes.

1 And the cite to that, Your Honor, is Exhibit 1004, 16 -- Column 16
2 through Lines 40 through 51. That's discussing the technical risk
3 measurement view as shown in Figure 7. And that's really what it's viewing
4 and what a skilled artisan would I understand is being viewed by those
5 figures.

6 And then the petition also includes additional citations to where
7 Keenan discusses as the threat model components, the specific assets that are
8 being thrown there.

9 JUDGE BELISLE: Counsel, if you could just go back, I think it was
10 Slide 26? This is where it references. So, the highlighted portion on the
11 slide says the technical risk measurement view 708 uses color to represent
12 different types of risk, and it provides an example of cyber, environmental,
13 accidental. Why shouldn't we just take that for exactly what it says, that
14 cyber is a type of risk? That's a risk category not a threat per se as being
15 disclosed in Keenan, but simply that Keenan is disclosing that there's --
16 those are three types of risk, three categories of risk but that's not a
17 disclosure of a threat.

18 MR. MIDDLETON: Because that's not what a person of ordinary
19 skill in the art would understand, Your Honor, because well really the type
20 of risk here is it's a type of risk because it's associated with a specific
21 problem. It's associated with the problem being cyber, environmental or
22 accidental, and it's that problem that's the threat. It's not risk presented in a
23 vacuum.

24 So, you might look at Figure 8 of the '366 patent, and Figure 8 shows
25 an example of risk in that column. And there in the column in Figure 8, risk
26 is listed as very high. So, you would never present risk by itself because the

1 risk very high by itself is meaningless. You're presenting in a vacuum.
2 You're not presenting it alone. So, you never just present a type of risk
3 without the associated -- you never just present risk without the associated
4 problem here. The associated problem is that cyber, environmental or
5 accidental. And that's the threat.

6 JUDGE BELISLE: Okay. Continue.

7 MR. MIDDLETON: And I just want to also reiterate the point that
8 Keenan's risk analysis includes threats. And that what we have here is just
9 testimony from both parties' experts. And Dr. Nielson, Patent Owner's
10 expert did testify that a risk analysis typically requires some form of threat
11 analysis. And both parties gave a definition of risk here and both parties'
12 experts agreed that the definition of risk includes threats within it. So, it
13 includes -- it's showing that risk is a function of threats or the potential risk
14 is defined as the potential impact on a system due to a threat that occurs
15 coupled with the likelihood that a threat will occur.

16 And both parties' experts agreed with this definition. Dr. Nielson did
17 attempt to change his definition part way through his testimony, but if you
18 look on the left, Dr. Nielson did testify that this is a definition that he applied
19 in his report and that he applied this and that this is the definition that is
20 consistent both in his career and in this patent, the '366 patent.

21 So, I'm going to touch base on a ground two with my remaining time,
22 Your Honors. So, looking at ground two, I recognize that the Board rejected
23 ground two and it's an Institution Decision. And looking at the Institution
24 Decision on Pages 26 through 29, I think there are three core reasons the
25 Board rejected ground two.

1 The first is the idea that Zheng only discloses mapping in the context
2 of cartography, so not in the context of correlating components. So, just as a
3 threshold matter, we talked earlier about how a mapping file has a well-
4 understood meaning in the art as a file or other representation that correlates
5 data from a source to a target. And that was shown on Slide 17.

6 And Zheng does disclose correlating data from a source to a target, so
7 in Slide 42 the idea here is to show that Zheng actually exposes two types of
8 mapping. One is that cartographic mapping and the other is the mapping
9 between layers that actually requires a mapping file. So, Zheng discloses his
10 cartographic mapping only in the base layer to represent the application
11 architecture, so the specific applications that are in the system itself. And
12 that's shown in Exhibit 1005, Column 3, Lines 28 through 31.

13 But then there are multiple different overlaying layers that go on top
14 of the bottom layer. So, for example, there's a threat modeling layer with
15 data and threat model components and the database table in Zheng correlates
16 to those threats and threat model components to the application architecture
17 in the base layer. And that's exactly what a mapping file does. It correlates
18 data in one layer to the source in another layer. And a representation of this
19 is shown on Figure 3 on Slide 43 and Slide 44 discusses the database table.

20 And then the second reason in the Board's Institution Decision for
21 rejecting Zheng was that the Zheng and Baker combination was that the
22 Baker does not disclose a teaching -- does not teach the correlating threat
23 model components with visual diagram components of a third-party software
24 application or doing so with a mapping file but Baker does. And this is
25 shown on Slide 46 and the core disclosure or the most important disclosure
26 is found in Baker in Paragraph 25.

1 So, Baker first discloses flowchart diagrams with native shapes and
2 components. Baker then discloses importing Visio shapes and diagrams,
3 and Baker needs a mapping file here for the same reason that the '366 patent
4 needs a mapping file. They both need a way to make sense of the imported
5 Visio diagram, but without the mapping file Baker's system wouldn't be able
6 to read the diagram or know what to do with it. Baker needs a mapping file
7 to correlate the data from the imported Visio diagram to a source, which is
8 the native shapes and components.

9 So, just to take a basic example, if you're importing a square from
10 Visio to Baker's native system you need a mapping file to say that the square
11 means square or maybe the square means threat or something along those
12 lines. So, that's the claimed correlating in Baker with the third-party
13 software diagram components.

14 And that correlating could be easily applied to Zheng. All a skilled
15 artisan would need to do is add an import function to Zheng and then the
16 imported Visio diagrams could be part of Zheng's base layer and the
17 application architecture and be correlated with threats and threat model
18 components in the threat model layer.

19 And the third and final reason I see in the Board's decision for
20 rejecting ground two is about that motivation to combine, but Zheng
21 discloses the need for more efficient threat modeling approaches and making
22 threat modeling faster. So, Exhibit 1005 at Column 1, Lines 21 through 34
23 and Pages 83 through 85 of the petition discuss this.

24 In a real world practical application the skilled artisan given Baker
25 would immediately recognize that importing diagrams meets this need in
26 Zheng, this need for faster threat modeling because you don't need to

1 reinvent the wheel. Instead, you could make a new diagram. And so instead
2 of making a new diagram you can just import it which is much faster.

3 Also, I want to add that importing diagrams was very well-known in
4 the art so combining Zheng and Baker would be a matter of using known
5 methods to achieve predictable results. The '366 patent even admits that
6 importing diagrams is well-known in the art in Column 2, Lines 47 through
7 54 where the patent admits that Lucidchart, SmartDraw and EdrawSoft are
8 three prior art programs that can import diagrams.

9 And unless there are any other questions, I'll reserve the rest of my
10 time.

11 JUDGE BELISLE: Counsel, this is Judge Belisle. Let's go back to
12 Zheng. Show me again where Zheng discloses a mapping file?

13 MR. MIDDLETON: It discloses it in the database table is the main
14 mapping file of Keenan, so it's Exhibit 1001, 38 through 33 through 42,
15 Column 38 through Lines 33 through 42. So, that's where the mapping file
16 starts to really correlate the different layers, so the base layers with the threat
17 modeling layer and the other layers that are added on to Zheng.

18 MR. YAMASHITA: Your Honor, this is Brent Yamashita. I'm the
19 lead counsel. I believe the LEAP program allows me to step in to help the
20 conversation? May I step in and address your question?

21 JUDGE BELISLE: Yes. Yes, you may.

22 MR. YAMASHITA: Thank you. So, I would just point out that in
23 Baker in Paragraph 25, it's the portion that, Matt, if you could go to Slide 47,
24 counsel was talking about earlier. It says at step 106, the processor acts to
25 automatically assign or associate predetermined objectives or controls
26 according to the shapes of imported flow charts. That's performing the exact

1 work of the mapping file of correlating threat model components, which is
2 the threat model aspects with the visual diagram components, which are the
3 things you're importing from Visio and so it's this portion that's excerpted in
4 the second bullet point.

5 So, Baker in this discussion then in Figure 4 is expressly talking about
6 doing that correlation between the thing you're importing and your eventual
7 threat model. And later in the paragraph it does indicate that this data is
8 stored. It says, this processed data may later be retrieved for initiating
9 process searches over the Internet. So, here you have this correlation that
10 Baker expressly says is performed and so once you have that data you have
11 to store it somewhere.

12 And what our petition points out is that Zheng already says that it has
13 this nifty database where it stores data that correlates different things
14 together, so you could store this data that they had just gathered in the
15 database of Zheng. And then you would then have the mapping file from
16 Zheng that stores the data that they could just generate it, which is the
17 remainder of that claim in the '366 where the mapping file in Zheng
18 correlates the threat model components with visual diagram components.

19 So, that's the point where Zheng and Baker meld with one another.
20 And the reason you would get to that point is because of the motivation that
21 Mr. Middleton pointed out earlier, which is that it's a very handy thing to be
22 able to import diagrams from Visio into a threat modeling system such as
23 Zheng. And then Mr. Hurlbut explained that, you know, this saves time for
24 people and it's just a nice thing because Visio was already such a good
25 program that allowed you to create diagrams. And because threat modeling

1 requires diagrams in the final form, if you could import it from one to the
2 other, you would save a lot of time.

3 And Zheng and Baker lead us to that point and once you do that
4 combination you find that we have the exact mapping file as required by the
5 claims.

6 So, I --

7 JUDGE BELISLE: All right. Thank you.

8 MR. YAMASHITA: Thank you. I think we're at the end of our time
9 for the primary so we'll rest here until rebuttal.

10 JUDGE BELISLE: And, Counsel, before you go, because this is part
11 of the LEAP program, if there's any other aspect of what your colleague has
12 discussed that you want to touch on right now you may do so, otherwise
13 we'll move on to Patent Owner.

14 MR. YAMASHITA: Okay, thank you. I think Mr. Middleton
15 covered it so I think we're ready to move on to Patent Owner.

16 JUDGE BELISLE: Thank you.

17 Patent Owner, how much time would you like to reserve for rebuttal?
18 You're on mute.

19 MR. D. JACKSON: Okay, sorry. Thank you, Your Honor. Before I
20 specify how much time I'd like to reserve can you tell me how much time
21 Petitioner has left of their allotted time?

22 JUDGE BELISLE: Yes. They have their 15 minutes.

23 MR. D. JACKSON: Fifteen minutes? Okay. So, preliminarily I'd
24 like to reserve 15 minutes, although I may not need the entire 45 in which
25 case I would like to reserve whatever additional time I have left.

26 JUDGE BELISLE: Understood. You may begin.

1 MR. D. JACKSON: Thank you. Thank you, Your Honor. So, let
2 me, I guess I'll begin back at claim construction. I'm not really sure how
3 much of this you'd like us to go through. It seems like some of this may be
4 somewhat moot given the parties' positions but let me just start with threat.

5 So, the term threat as we proposed is one or more potential events that
6 if they occur can cause adverse effects to a target system. And to address
7 one of the questions that was asked earlier, I don't really perceive much of a
8 difference based on the record here between the term adverse and
9 undesirable. I think they do have different meanings, but in the context of
10 the art we're looking at I think that I don't really perceive a difference of
11 those two terms here.

12 But the only issue that I saw that Petitioner took with respect to Patent
13 Owner's construction of threat was this phrase, quote, if they occur. And so
14 the -- our surreply, we addressed that argument, which is to say that we
15 addressed it by pointing back to Figure 2. Actually, let me, if I can, Your
16 Honors? I guess that's --

17 JUDGE BELISLE: Counsel, while you're doing -- if you're intending
18 to share your screen we don't see it yet.

19 MR. D. JACKSON: Would it be easier for me to share the screen
20 which I haven't done on Webex or can I direct you through the slides?
21 Whichever way --

22 JUDGE BELISLE: You may do either.

23 MR. D. JACKSON: Okay. Well, let me direct you to Patent Owner's
24 Slide 3, if I could, please? And this is just a depiction of Figure 2 from the
25 '366 patent. And you'll see that on the right-hand side in data store 206
26 there's a group of threats, 202. Not all of those threats, even though they're

1 threats, not all of those threats can possibly occur within a particular threat
2 modeling system or a system that's being modeled.

3 So, only the relevant threats, those shown in box 210, are the threats
4 that may occur within the system being analyzed by the threat modeling
5 system. So, that's the reason our construction says if they occur. These
6 threats are potential events that if they occur could cause adverse effects to a
7 target system.

8 Some of them, they're threats but they can't possibly occur because
9 they aren't relevant threats. So, I think that to the extent that the Petitioner
10 posited a different construction than that, that's not consistent with the
11 specification of the '366 patent.

12 Additionally, the parties, I think both parties and even the Board in its
13 Institution Decision used bluejacking as an example of a potential threat.
14 Bluejacking is a -- I'm sorry. It sounds like I'm getting some background
15 noises. Is that me?

16 JUDGE HAMANN: Actually that may be me. This is Judge
17 Hamann, and I apologize. I was on mute. So, I had a question for you,
18 Counsel.

19 MR. D. JACKSON: Okay. If you've got a question please go ahead.

20 JUDGE HAMANN: And I'll make sure to mute myself afterwards.
21 And I actually happen to be, just because it has both parties' construction, I
22 happen to be looking at Petitioner's Slide 10, but you can look where you
23 want, but I do have questions about, you know, Patent Owner's construction
24 versus Petitioner's construction.

25 MR. D. JACKSON: Sure.

1 JUDGE HAMANN: I'm trying to, you know, I'll start with Patent
2 Owner's construction. The one or more I'm not certain. That seems
3 unnecessary for just the standard word A, but I'm trying to understand really
4 the potential. It says, potential events, and it also said, if they occur. Why
5 isn't that redundant?

6 MR. D. JACKSON: So, a potential event means it has to be an event
7 that's in the relevant threats category in box 210. So, it's not a potential in
8 the context of a system being analyzed. It's not a potential threat if it isn't a
9 relevant threat, to use the language here shown in Figure 2.

10 So, recall, if we step back a little bit, in the context of the invention
11 we're talking about a system that can analyze multiple different other
12 systems for potential threats and implement potential, you know, ways of
13 mitigating those threats, for example. So, in data store, data store is, sort of,
14 the library, if you will, that may not be the right terminology but it seems
15 right to me, it's a library of threats that have been developed over time or
16 programmed in by the owner of the system, the threat modeling system.

17 And when you import a particular system to be analyzed, and in the
18 case of the '366 patent that's done via some third-party diagram that's taken
19 into the system, then the part of the invention of the system is determining
20 which of those threats are potential threats in the context of the system being
21 analyzed. And so that's why when we say we, in our construction we say
22 potential events to try to choose a little more generic term that doesn't use
23 the word threats, but potential events. Those become the relevant threats.

24 And then those events, if they occur, they may or may not actually
25 occur in the system being analyzed. They're potential there for it to occur
26 but depending on the particular structure of the overall system, and we have

1 figures in the '366 patent, Your Honor, if I could pull that over here in front
2 of me, showing an example. So, it's Figure 10, for example.

3 Figure 10 shows an example of a diagrammed threat modeling
4 system. I'm sorry. I didn't want to go too fast, Your Honor, but in the
5 context of that system when it all gets diagrammed out there can be -- there
6 can be threats, potential threats, okay, in this system that because of the way
7 the overall system is structured have already been essentially mitigated and
8 therefore can't occur.

9 So, I don't know that, you know, I mean, the word potential events
10 there is it somewhat duplicative of the phrase if they occur. I agree there is a
11 bit of a conceptual duplication there, but I think that the intent was to try to
12 capture the arrangement that's shown here in Figure 2 of the '366 patent.

13 JUDGE HAMANN: Okay, thank you.

14 MR. D. JACKSON: You're welcome. So, I also had slides on some
15 terms which I know the Board indicated it didn't necessarily require briefing
16 on, but threat model components, and this is on Slide Number 4, the parties
17 agree on this construction. It's a potential relevant source for one or more
18 threats and that largely comes directly from the specification of the '366
19 patent. I don't believe there is really much of a dispute there.

20 The next term on Slide 5 was visual representations of the threat
21 model components and this, our construction of this term really comes from
22 the file history of the '366 patent in which the examiner had some questions
23 about what do -- what does one set of term in the claims mean versus
24 another set? And the examiner was a little bit confused by the -- what the
25 different terminology meant and wanted a clarification and so that was
26 provided in the prosecution history. But this term simply means

1 representations of threat model components that can be displayed, visually
2 displayed on a diagram.

3 Mapping file, I think based on Your Honors' questions earlier this
4 may be more of a term that you'd like to get into. Patent Owner's
5 construction of mapping file is a file or one or more tables that correlate
6 threat model components with visual diagram components of a third-party
7 software application. And again, this comes from Slide 6, Patent Owner's
8 Slide 6.

9 In the specification of the '366 patent, the '366 patent says that
10 mapping files can be a file or one or more tables. And there isn't a note that,
11 I think it was Petitioner's argument earlier if I got my notes down correctly,
12 that suggested that the '366 patent says it can be other things. There isn't a
13 reference to other types of mapping files other than files or tables stored in a
14 database. Those are the only two examples that are provided in the '366
15 patent.

16 So, in Patent Owner's -- sorry, in Petitioner's proposed construction
17 where they talk about other representations, I forgot which judge asked this
18 question earlier, but I agree. I think that phrase other representation is vague
19 and open-ended. It doesn't provide us with any guidance as to what the
20 scope of the claim term is and then it frustrates the whole purpose of claim
21 construction, which is to resolve ambiguities and help us to understand what
22 the claim terms mean and therefore what the metes and bounds of those
23 claims are.

24 So, I think that Petitioner's construction of mapping file is faulty for
25 that additional reason in addition to the fact that it isn't really tied to the
26 language of the claims. I'm sorry. Go ahead, Your Honor.

1 JUDGE HAMANN: Yeah, Counsel, this is Judge Hamann again. I'm
2 just trying to understand looking at, I believe it's Patent Owner's Slide 6,
3 which is it's a proposal for mapping file. And focusing on the beginning of
4 the file or one or more tables.

5 Now, tables is an interesting word. That may or may not be a
6 database depending on who views it. So, in some sense is this construction
7 seems to exclude databases, which I don't understand Patent Owner intends?

8 MR. D. JACKSON: That's correct, Your Honor. We're not intending
9 to exclude databases. I think in the context of the '366 patent I was just
10 looking to see if I have a cite, but I don't readily, unfortunately. In the
11 context of the '366 patent, the mapping file can be a file, a standalone file, or
12 it can be tables stored in a database, so it would be a database table, one or
13 more database tables.

14 JUDGE HAMANN: Right, but a database arguably would have this
15 relational database to what not to be -- it's got I think it suggests two
16 potentially different meanings, so I'm not so certain what Patent Owner has
17 put forward is consistent entirely with the challenged patent.

18 MR. D. JACKSON: Oh, okay. I'm sorry. On my end you cut out
19 there a little bit, but I think what you were saying is that you don't believe
20 that or you're not sure that the database tables is supported in the '366
21 specification. Is that correct?

22 JUDGE HAMANN: No. What I'm suggesting is tables does not
23 equate to database necessarily and therefore I questioned, you know, what
24 exactly Patent Owner is proposing here? I mean, you can have a table that's
25 not a database certainly.

26 MR. D. JACKSON: Well, that's right.

1 JUDGE HAMANN: And a database, I think, denotes more structure.
2 So, if Patent Owner is meaning to exclude databases then that's one thing,
3 but it sounds like it's not meaning to therefore I question this proposed
4 construction.

5 MR. D. JACKSON: Right. I understand your question now, Your
6 Honor.

7 JUDGE HAMANN: And I --

8 MR. D. JACKSON: I'm sorry. I didn't mean to cut you off.

9 JUDGE HAMANN: No. And the only other thing I was going to add
10 is I understand a file may be just, like, a flat file. That's why I think both
11 parties recognize, you know, more may be needed for the construction but,
12 you know, I mentioned the concern with other representations and I, you
13 know, mentioned this concern with tables.

14 MR. D. JACKSON: Right. So, what I'd really like to do is find the
15 cite. I know there's at least one good cite in the specification for this idea
16 that it can be a file or tables in the database and I'd like to find that for Your
17 Honor just so that we can focus on that, but unfortunately, I don't have that.
18 I don't believe I have that handy. It's probably cited in the Patent Owner
19 response, if I can just take one second real quick? And if not, I can get this
20 on rebuttal.

21 JUDGE HAMANN: Well, Counsel, this is Judge Hamann again. I
22 certainly believe the challenged patent they did say tables but the post-
23 construction doesn't.

24 MR. D. JACKSON: Right, right. I understand. So, that may be
25 something that if Your Honors feel that it needs to be tightened up a little bit
26 to more correspond to the specification that may be a change that needs to be

1 made to our proposed construction. But like I say, I was trying to find, just
2 trying to find this in the specification itself. Column 37, 14 --

3 JUDGE BELISLE: Counsel, in the interest of time if it helps, at
4 Column 3 of the '366 patent around Lines 28 and 29, and we have the blatant
5 statement that it says, the one or more mapping files may include one or
6 more tables --

7 MR. D. JACKSON: Yes.

8 JUDGE BELISLE: -- stored within the one or more databases.

9 MR. D. JACKSON: Yes. Thank you, Judge Belisle. You're right.
10 That's a good example. I was looking deeper in the specification but that's
11 very concise. So, yes, I believe that certainly in the context of the
12 specification and the examples provided there, the tables are tables stored in
13 databases. And, in fact, when we get into the dependent claims I think it's
14 there's the three pairs of claims, Claims 2 and 3, I think it's 9 and 10 and 17
15 and 18, those talk about where the mapping files are stored. And those
16 explicitly talk about whether it be stored in a file or stored in a table in a
17 database, so that is exactly the arrangement that Judge Belisle was talking
18 about.

19 And so, I mean, if Your Honors feel that a table -- I mean, the
20 problem would be, of course, a table could be what's stored in a file, right?
21 So, we wouldn't want to exclude the situation where we're dealing with the
22 file alternative of the mapping file and within that file is a correlation table,
23 for example. Does that make sense, Your Honor, Judge Belisle?

24 We wouldn't want to inadvertently exclude that type of a file.

25 JUDGE BELISLE: Yes, I understand.

1 MR. D. JACKSON: Okay. And then, of course, tables as a separate
2 category from that situation, the tables would reside in a database. Does that
3 clarify things, Your Honor?

4 JUDGE HAMANN: Thank you, yes.

5 MR. D. JACKSON: Okay.

6 JUDGE BELISLE: And Counsel, is it -- isn't it as simple as, I mean,
7 ultimately the system has data, that it has stored data that does this
8 correlation. That data can be configured in various ways but the data is the
9 data that's being stored, whether it's stored in a file or a table or a database.
10 That data is providing, well, it is the data that provides the correlation
11 between these threat model components and the visual diagram components.

12 MR. D. JACKSON: That's right. That's right. But that's not to say
13 that's the only way things can be done. So, what I, and what I heard a lot of
14 and what I'd seen in in the papers so far from the Petitioner was really
15 essentially inherency arguments. You know, it happens therefore it must be
16 there and then this occurs with respect to the mapping file whether we're
17 talking about Baker or Zheng or even Keenan.

18 So, there's a lot of that going on and I just want to be cautious that
19 there's no evidence that that mapping file, just because you're able to take a
20 visual diagram and generate from it a threat model using threat model
21 components that doesn't necessarily mean that there's been -- that there
22 exists a mapping file. It may be, but it may not be. There's no evidence on
23 that. They didn't put that in. And, in fact, Your Honor when you questioned
24 Patent, or sorry, Petitioner's counsel about this, the argument was this is an
25 explicit anticipation analysis not there's not an inherency argument here.

1 And I think you were asking that more specifically about threats versus risk,
2 but I think the same issue applies here with respect to mapping files.

3 And yet really there's a lot of discussion in their papers about how,
4 well, you got from point A to point B so there must have been a mapping file
5 somewhere in the middle and that may or may not be true. There just isn't
6 any evidence on that whatsoever.

7 So, the reason we, and I know we were also criticized for our
8 construction of mapping file about using language from other parts of Claim
9 1, and just we're using that as an example in the construction, under Phillips,
10 under the Federal Circuit's en banc decision to Phillips, you're supposed to
11 construe the claims in light of the specification. The claims are supposed to
12 be construed from the view of a person of skill in the art that you're dealing
13 with. They're not supposed to be construed in the abstract, like, in a
14 dictionary definition that you might -- that you might find, even a technical
15 dictionary definition.

16 And so that's really the approach that Petitioner took is I want to give
17 you a generic definition that applies in all contexts and so that's why you
18 have this language in their construction about sources and targets. I mean
19 maybe that definition may fit, you know, in 70 percent or 80 percent or 90
20 percent of the circumstances that one may run into, but that isn't necessarily
21 the proper construction here in the context of the '366 patent.

22 And so, when we look at the meaning of mapping file in the patent
23 and specifically in the context of the claims, we're talking about this file that
24 correlates to threat model components with the visual diagram components
25 of the third-party software application. So, it's not in any way intended to
26 negate that claim language or to narrow the scope of the claim, which it

1 doesn't, but it's simply to provide the proper context of the meaning of this
2 term in the '366 patent.

3 And so that is a difference with respect to what the, and I'm sorry,
4 Petitioner argued in the Dynamic Drinkware case, I'm sorry, in the -- I think
5 it was the Dynamic Drinkware case where it was improper to import the
6 limitation. And I have their slides here. Sorry, Your Honors.

7 But the issue was whether you're negating, improperly negating the
8 dependent claim by importing those limitations into the construction of a
9 term in the independent claim and that's not what we're doing here. These
10 limitations, this was pointed out by Your Honors earlier, was that these
11 limitations were already there. And I'm not sure that whether it's part of the
12 construction per se or not, it's still part of the claim. These are still claim
13 requirements and these elements have to be found in the prior art. So --

14 JUDGE BELISLE: Counsel, would this whole issue be resolved if we
15 simply construe the phrase mapping files correlating threat model
16 components with visual diagram components of a third-party software
17 application instead of just mapping files? If we construe that whole phrase
18 isn't that your definition?

19 MR. D. JACKSON: It is, Your Honor. It is.

20 JUDGE BELISLE: Well, Counsel, on that point let me -- so what I
21 understand Petitioner to be arguing here is that in effect they want to parse
22 mapping files from the rest of it because one reference are your -- this is the
23 Zheng, Baker combination.

24 MR. D. JACKSON: Right.

25 JUDGE BELISLE: Mapping files perhaps comes from one reference,
26 the teachings of one reference, and then the correlation aspect comes from

1 another so they want to put those two together. We can just pause on that
2 until you get to your discussion of Zheng and Baker, but I suspect that's --
3 that is what I got from their argument today as to why they see that
4 importance in being able to separate the meaning of mapping files from the
5 phrase as a whole. And if you can touch on that at the appropriate time in
6 your presentation that would be useful.

7 MR. D. JACKSON: Yeah. Well, thank you, Your Honor. Let me
8 just touch on it briefly at least right now, and feel free to raise that again
9 when we talk more about the later grounds, but I think it underscores a
10 problem with their analysis. If you have to separate it out, separate out what
11 the mapping file is from what the mapping file does in order to find it in the
12 prior art, then I think it really highlights an issue with the prior art, right?

13 So, assuming their argument is Zheng discloses a mapping file but it
14 doesn't disclose a mapping file that performs the functions. And then the
15 argument, as I understood it at least with respect to Baker, is, well, Baker
16 shows at least something that performs those functions and then you put the
17 two pieces together and you can get the claim -- the claimed element. That's
18 kind of in a nutshell what I understood to be the argument.

19 But you still have to have, you know, all of the other elements of
20 showing obviousness when you talk about those combination of elements.
21 Why are they making that combination and is it -- is there a reason to be
22 making that combination? It has to be an evidence-based reason for doing
23 so. It can't simply be because anybody, including an expert, says, well, I
24 think it might make sense because it's faster or would provide a more robust
25 system or any of those sort of things. That's not recognized by the, by the
26 case law. So, I think that's the high point so if I run out of time and I don't

1 get to that, Your Honor, when I get to the later grounds that's really, kind of,
2 where I'm going with those. But let me let me go ahead and move on but
3 thank you for raising that.

4 So, in my presentation let me just go ahead and hit this because this
5 really relates to the substantive distinction, the primary substantive
6 distinction between Keenan and the claims of the '366 patent and that is the
7 differences between threats and risk. And unfortunately, we started in the
8 petition, which is the original target, with this idea that Keenan discloses risk
9 and therefore discloses threats.

10 And what we heard today was that was an express disclosure. That's
11 the basis of their argument, not inherency, and all of the evidence that's
12 come in since then, including the deposition of their own expert, has shown
13 that that's not accurate. That's just not the case.

14 There can be, there may be a relationship between those two but that
15 doesn't mean that they're the same. And that doesn't mean the disclosure of
16 risk discloses the underlying threats, assuming that there are threats giving
17 rise to that particular risk.

18 Let me just start off, you know, here on our Figure 7, or sorry, our
19 Slide 7, Patent Owner's Slide 7, this is Figure 8 from the '366 patent. And in
20 Figure 8 it clearly shows on the, the very left-hand column it shows a series
21 of threats. And then in the column next to that it shows the risk associated
22 with those threats, and you can see that there are multiple threats for each
23 level of risk that's disclosed.

24 So, and I think in our briefing we used the example of very high, very
25 high risk. So, if you just knew very high risk, their argument is that you
26 would know what threat gave rise to that risk, that in Keenan if you knew

1 that the risk was very high you would know what the threat is. Figure 8 here
2 of the '366 patent shows that's not true. You don't know what threat it is,
3 gave rise to that level of risk. There could be multiple. There could be one.
4 It could be a combination of more than one.

5 So, here we have at least, I think it was six different threats, that each
6 have the very high risk level. So, this --

7 JUDGE BELISLE: Counsel, this is Judge Belisle. Not to put words
8 in Petitioner's mouth here, but I think what they're arguing is that like what
9 your Slide Figure 8 or Slide 7 showing Figure 8, that it shows that a risk has
10 a threat, necessarily has a threat. I don't like to use the word necessarily
11 there but that -- but that a risk has to have at least one threat that would be
12 associated with it. And that that would be shown in this slide.

13 You might not know and that you don't need to know what that threat
14 is because the claim recites threat in a very broad sense. It doesn't require a
15 specific threat, just a threat. How do you respond to that?

16 MR. D. JACKSON: Sure. So, I will try, let me try to respond.
17 There's multiple responses to that. First of all, in the petition there was, you
18 know, seemingly taking inconsistent positions, on the one hand saying that
19 when you talk about threats and risk in Keenan, that knowing the risk means
20 a determination of a threat, right? And then later when Petitioner was
21 criticizing some of Patent Owner's arguments they said, well, the claims
22 don't even require determination of a threat. They require the storing of
23 threats and that they have to be associated with threat model components, et
24 cetera, et cetera.

25 I agree with the later point. The later point is determining threats
26 doesn't disclose the claim elements, but in their affirmative presentation

1 that's as far as they as they argued. They said that if you know a risk you've
2 determined it requires at least a determination of threats. And what was
3 shown in, first of all, that isn't -- Keenan doesn't say that at all. Keenan
4 starts with risk.

5 Keenan is assigned to AIG, a well-known insurance company, where
6 they're assessing risk profiles, presumably perhaps across their entire
7 business or at least aspects of their business, and they're trying to figure out
8 how they're going to manage risk, including setting premiums, et cetera, et
9 cetera. And so the whole purpose of Keenan is to disclose a system that
10 allows them to assess that risk.

11 So, Keenan starts with risk already known. There isn't any need to go
12 back and figure out why someone died and caused an increase in payouts for
13 life insurance, for example, or what the profiles of those folks are what, you
14 know, as a population what were the general causes that were driving
15 premature death versus other populations that didn't have it? They don't
16 have to go back and determine that at all.

17 Keenan is, I have this risk profile, let's figure out how we assess that.
18 So, Keenan doesn't disclose --

19 JUDGE HAMANN: Counsel?

20 MR. D. JACKSON: Yes, Your Honor.

21 JUDGE HAMANN: Counsel, this is Judge Hamann. I'm just trying
22 to understand real quickly just because I want to make certain we're not
23 importing anything from the specification probably into the claim language
24 itself. I mean, Keenan certainly discloses types of risk and gives an
25 example, cyber, environmental, accidental, for example. And I'm trying to
26 understand. If you've got a cyber risk, is Patent Owner suggesting that's not

1 disclosing a cyber threat? It seems like in this context, you know, to then,
2 and the same thing in environmental risks. That seems like -- but a fire, for
3 example, it seems like, you know, that at that level there may be something
4 to Petitioner's argument. I'm just trying to understand how Patent Owner is
5 parsing that given these different types of risk. I'm not sure that's necessary
6 as Petitioner suggested.

7 MR. D. JACKSON: Sure. So, I agree with Your Honor that when
8 Keenan talks about those environmental, cyber and I forgot what the third
9 category was, but there were three categories of risk, as Keenan says those
10 are categories of risk. They're not categories of threat.

11 And your question is, well, aren't there similar types of threats
12 underlying those risks? And there may be, but Keenan never -- there's no
13 part of Keenan that requires a determination of those threats, assuming they
14 actually exist, and/or an analysis of the claims with respect to those threats,
15 in other words no association of those threats with threat model components,
16 for example.

17 So, there -- there's no part of Keenan that requires the system or the
18 user of that system or the designer of that system even to go in and find out
19 what threats, if any, were the underlying threats that gave rise to those three
20 categories of risk.

21 JUDGE HAMANN: Okay. This is Judge Hamann again. Let me just
22 make sure, and I recognize your answer expanded upon this, but I'm just
23 trying to make certain. What's the difference between a cyber risk and a
24 cyber threat as Keenan discloses to the Patent Owner? I'm not sure I see
25 much of one.

1 MR. D. JACKSON: In Keenan there isn't. You're absolutely right.
2 There's no relationship disclosed whatsoever in Keenan. Was that your
3 question within the context of Keenan?

4 JUDGE HAMANN: No. It was is there a difference?

5 MR. D. JACKSON: Okay.

6 JUDGE HAMANN: This is just, I mean, to me if you say, if you
7 disclose a cyber risk why isn't that disclosing a cyber threat?

8 MR. D. JACKSON: Okay. So, if we step outside of Keenan and we
9 look at some of the other extrinsic evidence, and we submitted these
10 exhibits. There were a whole series of exhibits. I think it was exhibit, what
11 is it here, Exhibits 2004 I think it was, 2004 to 2008. I could look them up
12 here, but we -- and I was trying to find one that gave us a nice, pithy answer.

13 Risk is basically -- risk can be a function of threats. And the way the
14 literature describes, for the most part describes risk as, risk is a function of
15 the likelihood of a threat occurring times the impact that that threat would
16 have if it were to occur. So, if you take, and these are not necessarily
17 numerical. It's often depicted as an equation but it's not necessarily
18 numerical in terms of truly multiplying things out.

19 But you take the impact that the threat would have, so if there were a
20 particular, let's say, someone were able to implement a denial of service
21 attack on your system. That denial of service attack is a threat. It may
22 occur. It may cause a certain amount of damage if it were to occur. So,
23 what is the risk?

24 The risk is, okay, what is the percentage chance, let's say, that that
25 threat were to occur given the overall design of the system including any
26 mitigations that may be applied? So, let's say that there's a, they assess that

1 there's a five percent risk that a denial of service attack could actually be
2 implemented. But if the denial of service attack occurs, even with that five
3 percent risk, what's the impact of that threat? The impact may be it
4 completely shuts down the relevant part of the network.

5 So, the impact could be very high so you have a very high impact
6 multiplied conceptually by a very low chance of it occurring, and that may
7 result in a medium, you know, what you might categorize as a medium risk.
8 So, you can have a medium risk correlated to a denial of service attack in the
9 sense that you have a high impact but a low probability of it occurring.

10 And so, in that sense you can have any number of cyber threats that
11 could occur that could all give you that same risk, that could all end up
12 resulting in a medium level of risk that can be, you know, buffer overflow as
13 another way of apparently hacking into systems so where it's asking you to
14 input your password.

15 You can cause a system to flood that password field with data such
16 that it causes the buffer on the receiving end to overflow and causes the
17 software to malfunction and allows you to bypass the login requirement.
18 Again, maybe in that scenario the risk is -- the risk of it occurring, the
19 likelihood of it occurring, may be higher. Maybe instead of it being a five
20 percent chance maybe it's a 30 percent or 40 percent chance of it occurring,
21 but the risk or the -- sorry -- the impact of that once it occurs could be low
22 because there can be, within the system, a limited amount of data that the
23 hacker can actually get access to and cause damage.

24 But when you balance those two -- that is, the likelihood of that threat
25 occurring against the impact of that threat -- you may come to the same
26 medium level of risk. And those are both cyber categories of threats and

1 cyber categories of risk, so it's sort of the risk category is broad enough to
2 encompass potential multiple cyber threats.

3 Does that make sense, Your Honor? Did I answer your question?

4 JUDGE HAMANN: I understand your position. Thank you.

5 MR. D. JACKSON: Okay.

6 JUDGE BELISLE: Counsel, this is Judge Belisle. Perhaps you can
7 continue with your argument here, and let's assume, for the sake of your
8 argument here, that we were to find that Keenan's disclosure of these types
9 of risk, that that at least discloses, at some level, a threat. Sort of like, now
10 what? Take that forward. Even if it disclosed a threat, match that up against
11 your claim. What is missing now? Is there anything missing, once we find
12 that -- you know, if we were to find that Keenan does disclose threats, at
13 some level of, you know, specificity, how does that affect your argument?

14 MR. D. JACKSON: Sure. Well, first, I would, of course, disagree
15 that Keenan discloses threats, but, beyond, that the claims require, you
16 know, a particular treatment of the threat. So, first of all, threats have to be
17 stored.

18 Now, I know that Petitioner's counsels argue you don't have to
19 determine any threats, right? That may or may not be accurate. It depends
20 on what you mean by determine. Do you have to call it out and name it in
21 some, you know, output field such that somebody can read it? Perhaps not.
22 But the threats have to be stored in a database.

23 To store that data -- to store that threat, rather, in the database, specific
24 information about that threat is going to have to be stored in memory
25 somewhere, right? So, in that sense, yes, you do have to identify the threat.
26 You have to identify it to the level that's required to store it. But just

1 identifying it is not enough, which is all that they did in the petition. They
2 said you've got to -- you know, identifying risk necessarily means you've
3 determined a threat. That isn't what the claims require. They require much
4 more.

5 So, to answer your question, the threats have to be stored in the
6 databases. The threats have to be each associated with at least one of the
7 threat modeling components. So, again, if you look at Keenan and you say -
8 - I'm looking at the risk, I'm looking at the cyber category, just to take an
9 example, cyber category of risk -- and that somehow that means we have
10 determined threats, the claims say that the threats have to be stored in
11 memory -- or stored in a database, rather, and they have to be at least
12 associated with threat model components also stored in the database, and
13 that those threats have to be used to generate the actual diagrammatic, the
14 relational diagrammatic threat model that's later claimed in the claims, in
15 Claim 1.

16 Well, nothing about the petition deals with these supposed threats that
17 are underlying these categories of risk. So, right away, if you're -- all that
18 Keenan talks about, and all that's cited, is how risk is used in Keenan and
19 how risk is manipulated within the Keenan system. And those are the
20 citations they put out and pulled in their petition and said, oh, you see that?
21 That anticipates the claims of the '366 patent.

22 Once you acknowledge, as they now have, that risk and threats are
23 distinct, now none of those citations apply to the threats. Why? Because
24 Keenan doesn't talk about threats. It doesn't talk about how threats are
25 stored, if they're stored. It doesn't say they're associated with threat model
26 components. All of that discussion in the petition relates to what's being

1 done with Keenan's risk and the risk analysis. So, that's why it was really
2 critical in the petition that they say that risk explicitly discloses threats or
3 that one essentially determines the other, because all of their citations in the
4 Keenan are to assist them analyzing risk.

5 If you now acknowledge those two things are distinct -- and their
6 expert admitted this on cross-examination, he said there was no one-to-one
7 correspondence between risk versus threats. You can't do it. You might be
8 able to get to a category, to Judge Hamann's point, that cyber risk might
9 encompass a certain category of threats, but you can't determine particular
10 threats. And the claims require that specific threats be stored and that each
11 of the threats be associated with at least one threat model component. Those
12 are very specific, one-to-one type of requirements within the claim.

13 It isn't that if it discloses threats that, you know, that somehow
14 satisfies the claim language. It doesn't. But I think the point I hope I'm also
15 making, because this really wasn't clear in the papers up until today, is that if
16 you acknowledge, as they have now, that risks and threats are distinct
17 concepts, then all of the citations in Keenan that are supposedly aligning
18 with the claim elements, all of those citations are to the risk system. They
19 don't have anything to do -- and they don't discuss any threats that may be
20 underlying those risks.

21 And so now you have a complete misalignment between Keenan and
22 the claims. The only time that Keenan mentioned -- Keenan mentions the
23 word "threat" three times and it's always the exact same context. It's always
24 in the context of the particular -- it's called the technical threat vector, which
25 is shown in the figure that Petitioner's counsel pointed to. I think it was
26 Figure 5. Figure 5, I want to say. Anyway, it was shown in figure -- it was

1 shown in the figures of Keenan, but also it's mentioned in, for example,
2 Keenan -- this is in Table 3, which is at Column 14, Line 61 to 64.

3 It says one of the options within one of the views of Keenan is this
4 technical threat vector option. But it describes it. It says: color fills the
5 object based on the value of the technical risk ranking characteristic of that
6 object.

7 So, I don't know why the word "threat" was used, but clearly the
8 meaning, the definition that's provided here, the description, says that color
9 corresponds to a risk characteristic, a risk ranking characteristic.

10 So, there is no discussion of threats whatsoever in Keenan. There's no
11 analysis of how you handle threats or storing threats or associating threats
12 with threat model components or using those threats as part of a
13 diagrammatic threat model, which are all requirements in the claims.

14 So, the difference between Keenan and the '366 patent claims become
15 vast if you acknowledge that threats and risks are distinct concepts, which
16 they've now acknowledged.

17 And just to drive that point home, in terms of the differences between
18 the two, this is Mr. Hurlbut's testimony on cross-examination. And I think
19 we have this here. This is Patent Owner's Slide 8.

20 JUDGE HAMANN: Counsel?

21 MR. D. JACKSON: Yes, Your Honor.

22 JUDGE HAMANN: This is Judge Hamann. I was just trying to
23 understand. I believe that you gave a fulsome explanation to the question,
24 but I thought the question started off -- unless I'm mistaken, started off, you
25 know, assuming that Keenan's disclosure of risk discloses a threat. And then
26 it seemed like pretty quickly we got into how risks and threats are different.

1 MR. D. JACKSON: Yes.

2 JUDGE HAMANN: So, I had a little problem following some of that
3 answer, you, know matched up with the question asked.

4 MR. D. JACKSON: Okay. So, Your Honor, yeah, I'm sorry I didn't -
5 - you're right. I did get off onto the more fundamental point, I think. But,
6 assuming what you just said is correct, that you determine that a category --
7 you know, the category of risk somehow determines a threat, part of my
8 answer was that there's nothing in Keenan relating to how those threats are
9 handled in the Keenan system, if at all. I submit they aren't because there's
10 no discussion about that.

11 So, for example, you don't have -- even assuming that somehow a
12 category of risk provides a determination of threats, which I think was the
13 assumption in your question, assuming that's true, you don't have any
14 disclosure in Keenan that shows those threats being stored in a database.
15 You don't have any disclosure in Keenan showing that those threats are each
16 associated with one or more threat model components. And you don't have
17 any disclosure in Keenan showing that those threats are used in the threat
18 model diagram that's generated later in the claim.

19 So, just off the top of my head, those are three aspects of the claims
20 that you still don't have, based on Keenan, even assuming the premise of
21 your question, which was, you know, that disclosing risk somehow
22 determines threats.

23 Did that answer your question?

24 JUDGE HAMANN: It did. Thank you. Thank you.

25 MR. D. JACKSON: You're welcome. Well, I don't think --

1 JUDGE BELISLE: Counsel, you're at about 43 minutes of your 45,
2 just for your pacing purposes.

3 MR. D. JACKSON: Okay, yes. Sorry about that. Let me move on. I
4 will just direct you to Mr. Hurlbut's deposition testimony at Page 61, Lines 7
5 to 24, where he acknowledged the differences -- well, not the differences,
6 but that there are distinct differences between risks and threats.

7 Let me move on, if I can, quickly -- I'm trying to figure out what you'd
8 like to hear most. Well, let me talk about Keenan qualifying as prior art and
9 the fact that wasn't done in the petition. We do think it's a fundamental
10 problem. I know that Dynamic Drinkware has that loose language about --
11 you know, I think it was Judge Hamann who was pointing out, or maybe it
12 was Judge Belisle -- that, you know, that's a little bit taken out of context.

13 But, regardless, that also came before the Supreme Court's decision in
14 SAS. And I know Your Honors have probably seen that in our papers, but
15 that is a decision that predates the SAS decision. First of all, all that
16 Dynamic Drinkware is talking about is sort of the general, these are basic,
17 you know, legal burdens of production that occur in almost every context.
18 You can assign those same types of burdens in the context of infringement in
19 a patent infringement case. You could assign it in the context of damages.
20 You could use those same burdens in a breach of contract case. It doesn't
21 matter. Those are just in general legal concepts.

22 And all that Dynamic Drinkware was saying in that case, they said it
23 was proper to go ahead and assign those same type of burdens in that
24 context. Now, that predated SAS, where SAS, I think, pretty strongly
25 instructed us in the patent community that we're to look at the petition sort of

1 like a complaint, in the sense that it defines the metes and bounds of what
2 the dispute is.

3 And the question is: are the arguments and the contentions in that
4 document supported by the evidence or not? And then, of course, you have
5 to apply to the proper burden of proof to make that final determination.

6 So, with that, that came out in 2018, the Patent Office updated its
7 Consolidated Trial Practice Guide to make it clear that you can't withhold
8 arguments or evidence for the reply that are part of your prima facie case.
9 That was the one example that they explicitly gave in the updated Trial
10 Practice Guide.

11 This is definitely part of establishing a prima facie case of invalidity.
12 You have to show that the reference you're relying on qualifies as prior art.
13 They didn't do it. They made the bald allegation that it is prior art, and then
14 their argument now is, well, that put the burden on the Patent Owner to
15 challenge it if they felt like they should. Well, you could make the same
16 argument about showing that the prior art aligns with elements one through
17 ten of the claims, right? Why isn't it enough for them just to come in and
18 say, well, Keenan shows Element 1A, Keenan shows Element 1B, Keenan
19 shows Element 1C, and put the burden on the Patent Owner to come back
20 and challenge those as they see fit? That, obviously, isn't the right standard,
21 and nor should it be, with respect to the foundational question of whether the
22 reference qualifies as prior art to begin with.

23 So, I think that Your Honors' question, including Judge Turner's
24 questions about that, were directly on point.

25 So, I know I'm over a bit on time --

26 JUDGE HAMANN: Counsel --

1 MR. D. JACKSON: Yes. Go ahead, Your Honor.

2 JUDGE HAMANN: This is Judge Hamann. I have a few follow-ups
3 to your comments. First, I want to try understand -- obviously, Dynamic
4 Drinkware is still good case law, although it sounds like -- as far as I'm
5 aware, it sounds like Patent Owner's position is portions of that conflict with
6 SAS?

7 MR. D. JACKSON: That's correct, Your Honor.

8 JUDGE HAMANN: Okay. Well, let's focus first on Dynamic
9 Drinkware. Assuming that we find that Petitioner met its burden of
10 production by arguing -- just making, you know, the argument that Keenan
11 is prior art, did Patent Owner produce any evidence that Keenan is not
12 entitled to the priority date of its provisional?

13 MR. D. JACKSON: So, what we challenged was whether they met
14 their burden, their burden of going forward in establishing that it qualifies as
15 prior art. I'm not -- we did not get into the substance of the provisional,
16 Keenan's provisional, for example, and how and whether that aligns with the
17 claims of the '366 patent or not. Our position is they failed to meet their
18 burden of even establishing a prima facie case, and that was their burden.

19 JUDGE HAMANN: All right. Moving on from Dynamic Drinkware,
20 I'm trying to understand how your argument about SAS, and the timing of it
21 as compared to Dynamic Drinkware, squares with some more of the more
22 recent Federal Circuit cases, be it the *Rembrandt* case that dealt with the
23 broad replies, as well as acknowledges art in the *Corephotonics v. Apple*
24 case.

25 It seems like Patent Owner is trying to hew, potentially, too closely,
26 you know, despite those -- you know, I think the Fed. Circuit's guidance that

1 you have to look what, you know, Patent Owner was put on notice of and,
2 you know, if it's just expanding on the arguments or not. And so I'm just
3 trying to understand how your arguments square with these much more
4 recent cases from the Federal Circuit.

5 MR. D. JACKSON: Well, so, you have to, obviously, look at the
6 particular arguments that were made in those cases. If the issue wasn't
7 raised for the Federal Circuit to decide -- that is, does SAS, for example,
8 require that all of these prima facie elements be in the petition or not -- then
9 the Federal Circuit hasn't passed on that issue, because it hasn't been asked
10 to pass on it.

11 So, you would have to go back and look at the cases, and I'm not
12 aware of any of those cases in which this issue was raised. So, I don't think
13 the Federal Circuit has blessed it one way or the other.

14 JUDGE HAMANN: Except for Dynamic Drinkware, which you,
15 obviously, suggest is before SAS?

16 MR. D. JACKSON: It's before, and I think also it's in a slightly
17 different context, which I think it was Judge Belisle was pointing out that the
18 provisional filing date wasn't relied on until the Patent Owner came in later
19 and argued that they were entitled to an earlier date of conception, in which
20 case now the filing date of the prior art wasn't good enough, and so they
21 wanted to go back and capture a provisional filing date.

22 So, in that context, also given the fact that SAS hadn't come out, right,
23 I think that that analysis is fine. But now you have both the factual
24 distinction relating to trying to antedate the reference and the legal
25 distinction in the context of the Supreme Court's SAS decision, which is
26 reinforced by the Director's Consolidated Trial Practice Guide edits and

1 changes. I think you have both of those distinctions now versus what the
2 situation was in Dynamic Drinkware.

3 JUDGE HAMANN: Thank you.

4 JUDGE TURNER: This is Judge Turner. And I know I'm probably
5 eating into your time, but since I asked your cohort a hypothetical, I can't let
6 the opportunity to go to not ask you a hypothetical, as well. So, let's assume
7 we had a different situation where Petitioner had cited a publication and just
8 said, okay, here's the copyright date to that. And Patent Owner comes back
9 and doesn't say anything. And then in the Patent Owner response, they say,
10 oh, look, this really wasn't published. And they also somehow -- because,
11 let's say, they've only cited bare mentioning of, let's say, when it was
12 published, have they somehow failed in their duty, their equivalent of notice
13 pleading in the petition, that it was actually a publication? Would that also
14 be your position, I guess?

15 MR. D. JACKSON: So, actually, no, Your Honor. If I'm understanding
16 your -- and I understand it's a hypothetical -- I think there's a difference,
17 which is that, in the context of the copyright example, there's a lot more that
18 goes into things in the Copyright Office than simply -- well, I guess I need to
19 clarify. Are you talking about a self-reported copyright or are you talking
20 about a Copyright Office copyright? Because there's major differences.

21 JUDGE TURNER: There could be major differences, but let's err on
22 the Petitioner -- not this present Petitioner, but this hypothetical Petitioner is
23 very lackadaisical, and let's say they're just relying on somebody stuck a
24 copyright symbol on that. So, let's assume that they did the bare minimum.
25 Is that insufficient?

1 MR. D. JACKSON: If the Patent Owner so chooses to challenge that,
2 yes, I think that's insufficient.

3 JUDGE TURNER: But is it insufficient from what we're saying now,
4 that you're saying, look, you didn't do enough so therefore throw out this
5 ground?

6 MR. D. JACKSON: I think it is, Your Honor, because --
7 (Simultaneous speaking.)

8 MR. D. JACKSON: I'm sorry. Go ahead.

9 JUDGE TURNER: Or is more required and we need to kind of dig in
10 and see what did Petitioner say, what didn't they say? I understand you're
11 sort of saying, oh, well, it depends on the facts. Obviously, and all
12 hypotheticals do. But I'm still trying to tease out, Patent Owner's position is,
13 like, well, they didn't say specifically, they didn't show where the priority
14 there -- well, maybe it was never going to be challenged. I mean, in the
15 same publication instance, that if all they cite is the copyright date and
16 Patent Owner is like, well, I don't care, I think it was published, I'm not
17 going to bark up that tree. Why is the requirement of the Petitioner to do
18 more?

19 MR. D. JACKSON: So, Your Honor, I think you are correct. If
20 someone puts a date on a document and then they use that in the petition and
21 simply say it was published on that date, I don't think that's enough. And I
22 think that that's evidenced within the Board's own practice. I'm sure all of
23 Your Honors have seen this many, many times where people submit
24 declarations from libraries, the Internet Archive, for example, attesting to the
25 fact that a particular article or -- I don't want to use the word publication, but
26 an article -- was actually publicly available on a particular day.

1 Why are they doing that? They're doing that to make a prima facie
2 case that it's not just the date that they're relying on, but that they have
3 independent sworn testimony establishing, with facts, that that particular
4 article was, in fact, publicly available on a particular date, and therefore
5 qualifies as prior art. That's a common practice in IPR practice, and I'm sure
6 each of Your Honors has seen that many, many times.

7 That's an example of why -- or where parties have been reasonable
8 and not assume, just because it has a date on it that might be early enough to
9 be prior art, that the article is, in fact, prior art. So, they make that part of
10 their affirmative case in their petition where they have that testimony
11 backing that up and making it -- showing, in fact, that it is prior art.

12 JUDGE TURNER: And I guess my only quibble would be that it's
13 slightly different, because in that case, once we get an Institution that maybe
14 Petitioner fails under preponderance of the evidence because they haven't
15 shown the burden of rebuttal -- they haven't rebutted whether it's actually a
16 publication. Whereas, here, you're kind of saying, look, they didn't do their
17 due diligence, you know, wipe it off the board, don't consider it, because
18 they didn't do enough to make this ground viable, I think is what Patent
19 Owner is saying, but maybe you're not saying that.

20 MR. D. JACKSON: Essentially, what we're saying is that they have
21 to establish a prima facie case in their petition, and that part of the prima
22 facie case is establishing that the references they're relying on qualify as
23 prior art. And Keenan, on its face, doesn't. Keenan, the patent, you know,
24 the document that's actually relied upon, on its face does not qualify as prior
25 art. They make this allegation -- and Petitioner's counsel pointed to that in

1 their petition -- they make the allegation that it is prior art, but they provide
2 no analysis or other support to establish that that's, in fact, true.

3 And that's what I'm saying they needed to put in their petition. And
4 they didn't do it. They didn't do what it was necessary to show that the
5 teachings that they're relying on from Keenan, the later patent, in fact,
6 qualifies as prior art.

7 Does that answer the question, Your Honor?

8 JUDGE TURNER: No, I understand Patent Owner's position.

9 MR. D. JACKSON: Okay.

10 JUDGE TURNER: Maybe Judge Belisle will give you extra time
11 since I've wasted so much, but thank you. Thank you.

12 MR. D. JACKSON: Thank you.

13 JUDGE BELISLE: All right. Counsel, is there anything else you
14 want to raise right now? You have about three minutes left, but, as Judge
15 Turner said, I mean, we are the masters of the clock, so we can extend the
16 time if we need to.

17 MR. D. JACKSON: I will just -- I will skip over, in the interest of
18 everyone's time here, and just say that we did, obviously, brief the dependent
19 claims separately. And the three pairs of claims, I just want to mention this
20 once, because in Petitioner's briefing they've admitted this claim language,
21 which I think is key. And I'll just take the pair that involves dependent
22 Claims 2 and 3. The other two pairs -- that is, Claims 9 and 10 and 17 and
23 18 -- parallel Claims 2 and 3.

24 So, just to take an example, in Claim 2, this relates to where the
25 mapping file is stored, these two pairs of claims. So, in Claim 2 it says:

1 wherein the one or more mapping files are not stored in one or more
2 databases, but are stored on the one or more computing devices.

3 And then in Claim 3 it says: wherein the one-on-one mapping files
4 comprise one or more tables stored within the one or more databases.

5 So, those two claims are mutually exclusive as it relates to where
6 these mapping files are stored. One is in a database and one is not stored in
7 a database, but is stored on the one or more computing devices that are
8 recited in the claims.

9 And I think the piece that they're leaving out of the claims is
10 specifically in the context of Claim 2. It's the fact where it said -- the
11 negative limitation, that it's not stored in one or more databases. And that
12 allows the Petitioner to try to read the databases, essentially, from Claim 3 as
13 being stored in the one or more computing devices of Claim 2, whereas
14 there's an exclusive relationship between those two claims.

15 That's all I really wanted to say about those claims. I'll leave -- I'll
16 just stand on the briefing with respect to the other claims. And I'm sure I'm
17 out of time, Your Honor.

18 Zheng doesn't disclose mapping files. And, actually, let me just direct
19 you real quick to the particular slide that we've put together for this. This is
20 going to Slide 20 of our presentation. This is just sort of the conceptual
21 figure of Zheng, and this is Figure 2 from Zheng.

22 Zheng is a layered system. Zheng shows multiple layers for different
23 purposes. At the base layer it shows the architecture of the system. I think
24 it's layer 204 that is what they call the threat model layer.

25 They argue -- Petitioner argues that -- I'm just going to hit one
26 argument here, Your Honor, without waiving the other arguments, but this

1 relates to this particular passage in Zheng. And this is at Column 8, Lines 25
2 to 38, and we show this here on Slide 21.

3 And rather than -- I'm not going to read the whole paragraph, but
4 basically this deals with the fact that Zheng talks about how you can have
5 three layers, and you can have multiple combinations of these three layers.
6 And there are six possible combinations. And they lay those out here in the
7 yellow highlighted portion of Slide 21.

8 Petitioner's argument is that this shows that there's a mapping file
9 between these different layers. I submit that this passage actually shows the
10 opposite. It proves there isn't a mapping file. And the reason is because it
11 says right here -- and this is actually -- I think it's at Line 36 in Zheng in
12 Column 8 -- it says that there are six database tables that are generated for
13 this combination.

14 Well, there's six combinations and there's six database tables, one
15 table for each combination of layers, so there's no mapping between layers.
16 Instead, what Zheng does is it takes the data from the two layers, combines
17 them into a single database table, and stores that for each of the
18 combinations. So, there's no mapping that's occurring in Zheng. And I --

19 JUDGE BELISLE: Thank you, Counsel.

20 MR. D. JACKSON: Yeah, I'm afraid my time is up. Thank you,
21 Your Honor.

22 JUDGE BELISLE: In view of some of our questioning and the many
23 issues in this case -- and, Counsel for Patent Owner, you were right at your
24 one hour mark, so we're going to give five extra minutes to both sides.

25 Petitioner, you had the 15 minutes of your remaining time, but we'll
26 give you 20 minutes. If you don't need it, that's fine. You're not forced to

1 use all 20 minutes. And then, Patent Owner, you will have five minutes of
2 rebuttal time.

3 With that said, Petitioner, you may begin when you're ready.

4 MR. MIDDLETON: Yes, just one second, Your Honor. I'm sorry.
5 I'm still recovering from a cold, so I had a little cough there.

6 Thank you, Your Honor. So, I think I want to start right where Patent
7 Owner first started. That was on the mapping file issue, the claim
8 construction of mapping file.

9 So, I want to point, again, to Slide 13 of Petitioner's demonstratives.
10 And I understand there might have been some concern among the Board for
11 the terms of representation in Petitioner's construction. Petitioner would be
12 fine with the construction that reads: a file or database table that correlates
13 data from a source to a target. And this construction would be supported by
14 the specification of the '366 patent.

15 I think the citation that Patent Owner's counsel might have been
16 looking for was Column 38, Lines 33 through 42. And that specific citation,
17 towards the end where it's talking about file formats, it says: in
18 implementations in which one or more tables of databases are used for the
19 mapping files, each table is, for the purposes of this disclosure, a file.

20 So, that's what I meant earlier during my opening argument as well
21 when I said that the word "file" is used a little bit more broadly than how
22 someone might typically think of a file. So, the term "file" in terms of this
23 disclosure also means at least the database table.

24 I think this section could be also read to include other representations
25 beyond that, although it doesn't list specific representation -- other
26 representations. But, if the Board disagrees, then Petitioner would also be

1 comfortable with a definition that says: a file or other database table that
2 correlates data from a source to a target.

3 Moving on, something else I heard Patent Owner say is that Petitioner
4 is arguing inherency for a mapping file. That's not quite true. It's not true at
5 all. Keenan discloses -- I want to point to a specific disclosure in Keenan,
6 Column 18, Lines 36 through 50. And specifically it talks about a map that
7 is preset. So, it's a preset map, so it's a defined map that's preset and stored
8 in something, as in a -- that person of ordinary skill in the art would
9 understand this as a database or maybe a database table or maybe as a file.

10 And so that map is preset and that that's. And then Zheng -- Zheng
11 specifically discloses a database table between the different layers. And that
12 database table is Column 38, Lines 33 through 42.

13 And I heard Patent Owner's argument at the end there about
14 combining different layers, but I'm a little unsure what -- if I'm
15 understanding the argument correctly, I still believe the way the layers are
16 put together, the way the layers are linked together, that they're still being
17 linked together by this database table.

18 So, by the '366 patent's own words, which says that a database table
19 can be a mapping file, that database table is linking layers and thereby being
20 a mapping file. It's linking data from a source to a target.

21 JUDGE BELISLE: So, Counsel, this is Judge Belisle. Are you
22 equating the overlaying of these layers as mapping between the two of them,
23 you know, the multiple layers?

24 MR. MIDDLETON: It's not just the overlaying, but the linking of the
25 specific data to the source. So, in the threat modeling layer, some of the data
26 that's included is the threats and the threat model components, and that data

1 is linked to the application architecture in the base layer. So, it's not just the
2 specific overlaying or, like, stacking on top of one another, but the specific
3 linking of the two. And the database table stores the interactions between
4 those different layers, so the linking between those layers is stored by the
5 database table.

6 JUDGE BELISLE: Can you show us where you're getting that from -
7 -

8 MR. MIDDLETON: Oh, yeah. That was -- in Zheng, that was
9 Column 38, Lines 33 through 42. That was the discussion of the database
10 table and the storage of the database.

11 JUDGE BELISLE: Just one second. You said in Zheng Column 38?

12 MR. MIDDLETON: Yes, Your Honor.

13 JUDGE BELISLE: Zheng only has 16 columns.

14 MR. MIDDLETON: I might have incorrectly written the cite down,
15 then. I apologize, Your Honor.

16 MR. YAMASHITA: I think it may be Column 8, Lines 25 through
17 27.

18 MR. MIDDLETON: Yes, that's right, Exhibit 1005, Column 8, Lines
19 25 to 38. And also included it on a -- that's why it's also included on Slide
20 44. Sorry about that, Your Honors.

21 JUDGE BELISLE: And so, just to clarify, in Column 8 at Line 25
22 through 27 of Zheng, the teaching of mapping file comes from this
23 disclosure of at least one database table is used to store data for each layer or
24 for each possible combination or interaction of the layers?

1 MR. MIDDLETON: Yes, as well as the other disclosures of Zheng's
2 mapping but then linking between the layers. So, when Zheng is talking
3 about the linking between the layers, that's what it's referring to.

4 JUDGE BELISLE: And where is this? Again, sorry, you may have
5 already said it, but where's the linking of the layers?

6 MR. MIDDLETON: The linking of the layers, I believe that's also in
7 the same citation area. It talks about the interactions between the layers and
8 the linking there. Or I can find -- try to find something more --

9 MR. YAMASHITA: If I may, that it is later, in Column 8, Lines 30
10 through 32.

11 JUDGE BELISLE: Okay. Thank you, Counsel.

12 MR. MIDDLETON: And so, moving on next to the risk versus
13 threats discussion, I heard Patent Owner say that the only thing that we
14 argued was there has to be a determination of threats in Keenan. But we
15 never argued that there's any particular determination of threats that was
16 required. What Your Honor said was correct. Petitioner's argument is that a
17 risk has to have at least one threat associated with it, but there's no level of
18 specificity to that type of threat. It can be a cyber threat, an environmental
19 threat, or accidental threat.

20 And what I heard in Patent Owner's response to Keenan disclosing
21 this nature of the risk, the cyber, environmental, accidental, was that Keenan
22 doesn't disclose a determination of threats. But Patent Owner has already
23 agreed, during Patent Owner's presentation, as well as in the surreply at Page
24 14, Patent Owner has already agreed that the claims of the '366 patent don't
25 require any determination of threats. So, there's no determination that's

1 required. So, to the extent that Keenan doesn't determine the threats, then
2 that's not something that is an issue.

3 JUDGE BELISLE: Counsel, this is Judge Belisle. I mean, do you
4 agree that in order to store a threat you need to know the threat?

5 MR. MIDDLETON: I think the threat needs to be known, but I also
6 recall the discussion earlier about the definition of what a risk is, and that a
7 risk is defined as the impact of a threat by the likelihood of that threat
8 occurring. So, when you know a risk, you know that there is a threat
9 associated with it. And you don't need to know specifically which threat is
10 stored; you just know that there are threats that are stored.

11 And there's never a requirement in the claims that those threats are
12 displayed in any particular model. It's just that those threats need to be
13 stored. And --

14 JUDGE BELISLE: Excuse me. That same threat, though, needs to be
15 not just stored but associated with a threat model component.

16 MR. MIDDLETON: Yes.

17 JUDGE BELISLE: And then mapped to a third-party object. So,
18 wouldn't the claim require that you have to know the threat in order to store
19 it, associate it with an object, and then map it to another object?

20 MR. MIDDLETON: To the extent that you have to know the threat, I
21 would still say that the cyber threat -- the cyber, environmental, and
22 accidental would still qualify as knowing that threat. Because, again, using
23 Patent Owner's definition of a threat, a cyber event is one or more events
24 that, if they occur, can cause adverse effects to a target system. And cyber
25 events can still be stored, and exactly it is stored in Keenan.

1 So, if you look at the Figure 7 again, Keenan discloses color-coding
2 specific -- the views based on the type of risk or the type of problem that is
3 occurring. So, in this case, cyber, environmental, or accidental. So, in order
4 to do that color-coding, Keenan would need to know what is underlying the
5 asset at issue, the asset or the threat model component at issue.

6 So, if it's going to color code the asset that's being analyzed for a
7 particular type of risk, then it needs to know what that asset is related to and
8 what threat is affecting that, being it cyber, environmental, or accidental.

9 JUDGE BELISLE: And, Counsel, here's where I come back to the
10 question I had asked originally. This gives me some pause, what you're
11 arguing, because what I'm -- it sounds like you're arguing it would
12 necessarily disclose these items that you're talking about, but that you can't
13 point to an express disclosure in Keenan of these features.

14 I keep hearing that the skilled artisan would know, or that the skilled
15 artisan -- that this would show this, meaning that it would necessarily mean
16 something to the skilled artisan. I'm not hearing that it is expressly
17 disclosed. And so, if you can help with that, that would be, well, helpful.

18 MR. MIDDLETON: Well, I would refer, again, Your Honor, that
19 anticipation isn't a word-for-word test. It's not limited to just the specific,
20 explicit words. It also includes what a person of ordinary skill in the art
21 would understand from those words.

22 And that disclosure is still explicit. So, what I'm saying is that the
23 disclosure it's still explicit, it's still there, it's just not as explicitly stated in
24 the same terminology that the '366 patent uses. So, the '366 patent might
25 call a cyber event a threat and Keenan calls a cyber event type of risk. But

1 those two things, maybe different terminology, in this case, become part of
2 the same disclosure.

3 I also want to address, Your Honor, the Patent Owner's point about
4 acknowledging that risk and threats are different. This wasn't a grand
5 admission. The Petitioner always acknowledged that threats and risk are
6 distinct. The Petitioner's argument, from the beginning, was that risk is a
7 function of threats, and that a person of ordinary skill in the art would
8 understand from looking at Keenan that threats are expressly disclosed from
9 Keenan. And so that was never Petitioner's argument there.

10 And I also want to point out that Column 2, Lines 37 through 40 says
11 that all features of Keenan could be combined. So, when Keenan talks about
12 risk, it's talking about the same different types of risk, the cyber,
13 environmental, accidental types of risk that are disclosed in the portion we
14 are pointing to. And it's risks that are associated with the problem.

15 And we should contrast with something that Patent Owner cited to,
16 which was a Figure 8 in the '366 patent. Patent Owner cited Figure 8 of the
17 '366 patent in the presentation and pointed out that the risk is very high, but
18 Keenan doesn't just disclose risks that are very high. That's not Keenan's
19 risk. Keenan includes types of risk that are cyber, environmental, accidental,
20 and whatnot.

21 JUDGE BELISLE: So, Counsel, this is Judge Belisle again. How do
22 I store that? How is Keenan disclosing cyber threat?

23 MR. MIDDLETON: Right.

24 JUDGE BELISLE: Let's assume cyber risk were interpreted to be
25 cyber threat, how does Keenan show storing cyber threat?

1 MR. MIDDLETON: It's stored in a database. And I can pull up the
2 specific database disclosures for Your Honor, if you'd like, the specific
3 disclosures where Keenan says that everything can be -- it talks about the
4 specific methods of storage in Keenan and --

5 JUDGE BELISLE: But isn't it your argument that Keenan discloses
6 storing some stuff and the skilled artisan would know that this other stuff
7 needs to also be stored if you're going to use it? I mean, those words are not
8 your words, but just the gist of your argument, I believe, is that Keenan
9 discloses storing, and this material regarding the cyber risk would need to be
10 stored in order to use it in the computer system.

11 MR. MIDDLETON: So, I would point Your Honor to Exhibit 1004, a
12 Keenan reference at Column 21, Lines 27 through 33. And this is towards
13 the end of the Keenan reference when it talks about storing. So, it doesn't
14 just talk about storing to particular embodiments or particular aspects, but it
15 does talk about storing all or part or a part of the processes in the preceding
16 embodiments.

17 So, it really says that anything in Keenan can be stored, and then it
18 lists the different types of methods that they can be used as storage. It says a
19 program may be stored in a computer-readable storage medium. It can be
20 stored in a ROM or RAM or a magnetic disc or a compact. So, Keenan does
21 have this explicit disclosure of the types of risks that it disclosed as, you
22 know, all are part of the preceding embodiments being stored in the -- and
23 it's stored in a number of different manners, not in one particular manner.

24 JUDGE BELISLE: Continue.

1 MR. MIDDLETON: I have no further points, Your Honor. I don't
2 know if Mr. Yamashita wants to jump in with anything. I see his camera on
3 so --

4 MR. YAMASHITA: Yeah, if I may. Just to pick up on a point from
5 Judge Belisle about the difference between inherency versus express
6 disclosure. Our view is that Keenan expressly discloses threats without
7 using the word threat. And that's the difference we're trying to make, that
8 someone of skill in the art would read Keenan and see the word "cyber" and
9 see the word "risk" and understand that that is not only conveying risks, but
10 it's also conveying threats.

11 The analogy I would offer is, if we're considering does a publication
12 disclose an elephant, one way it could disclose an elephant is by using the
13 word "elephant." Another way it could disclose an elephant is if it describes
14 an elephant without using the word elephant, or if it has a photo of an
15 elephant without using the word elephant.

16 And that's the point we're trying to make here, that Keenan discloses
17 threats, even though it doesn't use the word "threat." And that's still an
18 express disclosure and does not get into the realm of inherency because
19 we're not asking you to infer that it must be disclosed. We're saying that
20 someone like Mr. Hurlbut who reads this would understand that it is
21 disclosing a threat.

22 And I guess to pick up on the last point that Judge Belisle raised about
23 where is this thing stored, in addition to what Mr. Middleton pointed out, I'd
24 also point to the abstract of Keenan that says that the integrated object
25 environment, which is the system that it's describing, runs in a graph
26 database environment.

1 So, it makes clear from the very outset that the thing I'm going to
2 describe to you, this integrated object environment, is operating in a graph
3 database. So, I'd also offer that.

4 And if I may just address one other point about, I think, the Dynamic
5 Drinkware issue and whether, you know, things were properly provided in
6 the petition or not. It seems to me that, you know, at this stage of the IPR,
7 you know, we have the record and that record includes our reply brief. And
8 so, the issue is, you know, have we met our burden of showing that Keenan
9 anticipates, given the entire record?

10 And I've heard Patent Owner say that we didn't -- in our petition, we
11 didn't establish a prima facie case. But it seems to me that at this stage we're
12 supposed to consider the entire record as to whether we've met our burden.
13 And if I listened to counsel correctly, he's not contesting the disclosure of
14 the Keenan provisional. He seems to have meant that the Keenan
15 provisional discloses everything that Keenan does, which is our view as
16 well.

17 And so, you know, it seems to me that, you know, counsel didn't
18 move to strike the reply or anything like that, so the record is what it is at
19 this point. And, you know, I understand that we have different views of the
20 Dynamic Drinkware requirements. We still think we read it correctly, but,
21 even aside from that, even if we're wrong, it seems to me that we still have
22 the record. And the record includes our reply brief, which does lay out the
23 Keenan provisional disclosure,

24 So, I thank Your Honors. I have nothing further unless you have
25 questions.

26 JUDGE BELISLE: Thank you, Counsel.

1 Patent Owner, you have five minutes.

2 MR. D. JACKSON: Thank you, Your Honor. So, I just want to hit a
3 very few specific points, hopefully in five minutes or less.

4 First of all, Petitioner's counsel said that the claims don't require that
5 the threats be displayed, and that's not accurate. In fact, Claim 1 specifically
6 says -- this is in Column 43, Line 57 to 58 -- it says: a threat report
7 displaying each threat.

8 I'm not reading the rest of the claim language, but it's saying that the
9 threat has to be displayed on the threat report, or as part of the threat report.

10 So, the question was in the context of, well, don't you have to identify
11 the threat in order to store it, and so forth, in the claim language? And the
12 argument was, well, no, you don't have to; you don't even have to display the
13 threats. That's not true. That's what the claim says, is that a threat report
14 displaying each threat is generated.

15 Point number two, I still feel like that Petitioner is trying to kind of
16 walk the line somehow between express and inherent disclosures in their
17 petition. And they said that you can use different terminology to express the
18 same concept. And that's true, as a legal premise, that the prior art reference,
19 or even the specification of the patent you're talking about when you're
20 talking about 112 support, does not have to use the same words as are in the
21 claims. They can be different terminology as long as the same concept is
22 disclosed. That's true.

23 But, here, what they're saying is that risk discloses threats, two
24 different words allegedly disclosing the same concept. But that's been
25 undermined by all of the evidence of record, the extrinsic evidence, for
26 example, that we submitted in Exhibits 2003 to 2008. It's also

1 fundamentally been undermined by their own expert testimony on Page 61
2 of Exhibit 2002.

3 And he's the one that's, supposedly, in his declaration making the
4 linkage in Keenan between risk and threats. So, the only evidence they have
5 that a person of skill in the art reading Keenan would understand that risks
6 equates to threats in some fashion is their expert, but on cross-examination
7 he admitted he wouldn't be able to identify specific threats just knowing the
8 risk associated with the threat. That's, again, Exhibit 2002, Page 61, which
9 we've cited multiple times in our briefing.

10 And then, finally, the final point, which is that you have to consider
11 the entire record. Yes and no. Certainly, all the arguments and evidence
12 that are properly submitted should be considered, but if in their reply they're
13 changing their position, they're changing their arguments as to what is the
14 priority date of this reference or what's the priority date of the '366 patent or
15 does the Keenan reference disclose something inherently or not, or any other
16 position change, that's not proper. That's a moving target.

17 You're supposed to make your case in your petition. Those are the
18 allegations that the Board is charged with assessing and issuing a ruling on
19 as to whether those are supported by the evidence. Moving the ball is not
20 only improper as a general matter, it's also unfair to the Patent Owner who's
21 constantly chasing a moving target.

22 You know, we took Mr. Hurlbut's deposition using the arguments that
23 were laid out in the petition. For them to come into the reply and now
24 change positions, sometimes subtly, sometimes not so subtly, is not proper.

1 So, I think my time is probably up, and I appreciate the Board's
2 graciously extending us some additional time. And, with that, I'll yield the
3 floor.

4 JUDGE HAMANN: This is Judge Hamann. I just have one quick
5 question. Patent Owner would agree that Petitioner didn't change its
6 position that Keenan was prior art between the petition and reply? Is that
7 fair?

8 MR. D. JACKSON: You're asking me, Your Honor, Mr. Jackson for
9 Patent Owner?

10 JUDGE HAMANN: Yes.

11 MR. D. JACKSON: Yes. I mean, certainly, at a high level, they are
12 maintaining their position that Keenan qualifies as prior art, but that's really
13 a conclusory position. The question is: did they support that in the petition
14 or not? And our position is they haven't done that.

15 JUDGE HAMANN: Thank you.

16 (Pause.)

17 JUDGE HAMANN: Judge Belisle, I think you're on mute.

18 MR. D. JACKSON: Thank you, Your Honor.

19 JUDGE BELISLE: See the magic of the mute button?

20 (Laughter.)

21 JUDGE BELISLE: Counsel, if you could read my lips, your case is
22 submitted and taken under advisement. We are off the record.

23 (Whereupon, the proceedings at 3:34 p.m. were concluded.)

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