

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC. AND JUNIPER NETWORKS,
Petitioner,

v.

ORCKIT CORPORATION, INC.
Patent Owner.

IPR2023-00401
Patent 7,545,740 B2

Record of Oral Hearing
Held: June 12, 2024

Before KRISTEN L. DROESCH, NATHAN A. ENGELS, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

APPEARANCES:

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P R O C E E D I N G S

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JUDGE DROESCH: Good afternoon, everyone. Hope you all can hear me. My name is Judge Droesch. Joining me for this hearing are Judge Engels and Judge Dougal. We're here for the oral hearing for IPR2023-00401 and IPR2023-00402. So that's two cases today. So to start off with, unless the parties have agreed otherwise in advance, we will hear the arguments for IPR2023-00401 first. After that, we'll take a quick five or ten minute break, and then we'll hear the arguments for IPR2023-00402. So per the order regarding the oral arguments, Petitioner will be allowed 60 minutes total for its presentation. And then Petitioner will go first and may reserve some of this time for rebuttal, which may be no more than 30 minutes. Following Petitioner's initial presentation, Patent Owner will make its presentation, and Patent Owner will also have 60 minutes and may also reserve some of its time for rebuttal to respond to Petitioner's rebuttal arguments. And again, that may not exceed 30 minutes. A couple of quick reminders before we begin to aid in the preparation of the hearing transcript. Please try your best to remember to identify yourself before speaking and to identify your demonstratives by the slide numbers. Counsel for Petitioner, will you please make your appearances today?

MR. FOSTER: Thank you, Judge Droesch. Yes, this is Theodore Foster with the law firm Hayes and Boone, lead counsel for Petitioner Cisco Systems in both these cases. And with us in the meeting room are Calmann Clements and Gregory Huh, also with Hayes and Boone. Mr. Clements will be arguing the 00401 case for Cisco. And Mr. Huh will be arguing the 00402 case for Cisco.

1 JUDGE DROESCH: Thank you, counsel. Counsel for Patent Owner,
2 will you please make your appearances?

3 MR. STAMATOPOULOS: Good afternoon, Judge Droesch. This is
4 George Stamatopoulos with Kobre and Kim law firm for Patent Owner,
5 Orckit Corporation. And with me here today is Steve McBride, who's lead
6 counsel in the case. I'll be arguing in both of the cases here today. And also,
7 I'd like to note for the Board that on the public line we have representatives
8 for Orckit Corporation joining. Mr. Rich Baker, who is the CEO of Orckit
9 Corporation, and Mr. Yehuda Binder, who is an advisor in Orckit
10 Corporation and a former employee of Orckit Corrigent, which is the
11 original assignee of the 740 and 821 patents.

12 JUDGE DROESCH: All right, and counsel for Petitioner, before we
13 begin, I'd like to ask you if you'd like to reserve some of your time for
14 rebuttal?

15 MR. CLEMENTS: Yes, Your Honor, I will reserve 20 minutes.

16 JUDGE DROESCH: Okay, and counsel for Patent Owner, would you
17 like to reserve some of your time as well?

18 MR. STAMATOPOULOS: Yes, Your Honor. Likewise, 20 minutes.

19 JUDGE DROESCH: Okay, great. All right. So, counsel for
20 Petitioner, you may begin your presentation when you are ready.

21 MR. CLEMENTS: Thank you, Your Honors. My name is Calmann
22 Clements representing Cisco. We'll start today with slide two. So the 740
23 Patent relates to link aggregation, and link aggregation is a technique by
24 which multiple parallel lines are used to transfer data between two
25 destinations. And in the case of the 740 Patent, those two destinations are a
26 user node shown on the left and blue, and a communication network shown

1 in the green on the right. Turning to slide three. Now, the link aggregation
2 here is done or includes two groups, and in the claims reside a first group of
3 first physical links arranged in parallel. These first links connect the user
4 node to a set of user interface modules also referred to as line cards, and the
5 links in this first group are sometimes referred to as ports because they
6 connect to the ports on the user node. The claims also recite a second group
7 of second physical links arranged in parallel, and these links in this group
8 connect the line cards to the communication network. And these lines are
9 sometimes referred to as traces because they can be implemented as
10 backplane traces. Turning to slide four.

11 Now, when distributing traffic on multiple lines, the system needs to
12 decide which line will transmit a particular packet, and the 740 describes and
13 claims a hashing technique to make this decision. As shown in the yellow
14 highlighting here, the claims require that a single computation is used to
15 select both a link from the first group and a link from the second group.

16 Turning to slide five, the prior art Bruckman describes the same link
17 aggregation arrangement and the same selection process that is recited in the
18 claims of the 740 Patent. As we can see here in the figure, Bruckman
19 teaches link aggregation between a customer node shown in blue on the right
20 and a communication network shown in green on the left. Now, I'll note that
21 in Bruckman the upstream versus downstream directions are flipped. So in
22 Bruckman we see the communication network shown here on the left,
23 whereas in the 740 Patent, when we're looking at it, the communication
24 network is on the right.

25 Turning to slide six, Bruckman also teaches the same two groups of
26 links that are discovered in the 740 Patent. There is a first group of links

1 shown in blue that connect the port and the user node to the line cards. Then
2 there's a second group of traces shown in green that connect the line cards to
3 the communication network. So Bruckman teaches the same link
4 aggregation arrangement we saw in the 740 Patent. Also, like the 740
5 Patent, Bruckman describes using a single hash value that results in both the
6 selection from the first group and a selection from the second group. So
7 accordingly, as we will discuss in more detail today, Bruckman renders the
8 claims of the 740 Patent obvious. Now, turning to slide eight, there are three
9 main points we're going to discuss today, and the first one is that Bruckman
10 teaches selecting links from two separate groups as claimed. Turning to
11 slide nine. Now, considering Bruckman's arrangement of two groups of
12 links, there are two selections that need to be made in order to transmit a
13 packet between the communication network and the user node. In particular,
14 the system needs to select which trace or green line will transmit a packet,
15 and the system also needs to select which line or blue line will transmit the
16 packet. So selections need to be made from two groups.

17 So turning to slide ten so how does Bruckman make these selections?
18 Well, Bruckman explains that it applies a hash function to information from
19 the header in order to determine which link or blue line to transmit a
20 particular packet. And turning to slide eleven. Because of Bruckman's
21 structural arrangement, selection of the link in the first group also results in
22 the selection of the trace. So, for example, let's say the system applies a
23 hash function and selects L-1, which is the topmost line shown here in the
24 upper right. This decision also results in selection of the topmost trace,
25 because that topmost trace is the only trace connected to the same
26 concentrator as L-1. So Bruckman's selection process results in two

1 different selections, one from the group of ports and one from the group of
2 traces. And in that manner, Bruckman teaches selecting the first link from a
3 first group and a second link from a second group. Turning to slide twelve.
4 In an attempt to distinguish Bruckman from the claims, Patent Owner seeks
5 a construction of the selecting step as shown here at the bottom. Patent
6 Owner's proposed construction adds the phrase wherein the first physical
7 link is not fixedly assigned to the second physical link. So Patent Owner's
8 proposed construction does not merely seek to interpret the meaning of a
9 particular word or phrase, the selecting step. Rather, Patent Owner seeks to
10 add in entirely new structural limitations to the claims, and we think this is
11 improper.

12 Now, Patent Owner argues that the proposed construction is
13 necessitated by the language of the selecting step itself. They argued that
14 because the claims require two selections, this would allegedly preclude a
15 situation in which there is only one option on the second leg of the journey.
16 But Patent Owner's position implies that these two selections must be done
17 in sequence. In other words, one selection followed in time by a second
18 selection. However, the claims recite, the selections must be made in a
19 single computation, not in sequence. And when making selections from two
20 groups simultaneously, the system still has to select one port out of all the
21 available ports and one trace out of all the available traces. So the fact that
22 there are two selections does not justify adding Patent Owner's structural
23 limitations to the claims. Turning to slide 13, so as we just discussed, Patent
24 Owner argues that because there are two claim selections, there has to be
25 more than one choice on the second leg of the journey. But Patent Owner's
26 applying this logic in only one direction even though the claims recite

1 bidirectional communication. So, if we were to apply Patent Owner's logic
2 consistently in both directions, they would be excluding the embodiment of
3 figure one in their patent. As shown in the red box there. If the system
4 transmits a packet on one of the traces on the right side of line card n, then
5 there is only one choice as to which port will transmit the packet. So there
6 are situations in the 740 Patent where the second leg of the journey has only
7 one choice. But again, we disagree with Patent Owner's logic. Just because
8 there are two selections does not require particular structural arrangement
9 that Patent Owner seeks to add to the claims.

10 JUDGE DOUGAL: Counsel, would this necessarily rule out figure
11 one? I mean there's three different line cards, right? And multiple 24's on
12 the second side, at least the first two. So even though there's other aspects,
13 maybe that has one trace or line 24 wouldn't necessarily read out this
14 embodiment?

15 MR. CLEMENTS: It would read out an embodiment that uses that
16 line card. You are correct, Judge Dougal that if you were only using the top
17 two line cards, it wouldn't necessarily do it. But I think the ultimate point
18 we're trying to make here is that we don't think that the having two
19 selections necessitates the particular structural limitation the Patent Owner is
20 seeking. So turning to slide 14, Patent Owner also cites the specification of
21 the 740 Patent to justify their proposed claim addition. And Patent Owner
22 gets this language about the fixedly assigned from this paragraph here,
23 where it states, unlike some known network element configurations in which
24 each user port is fixedly assigned to a specific backplane trace, the load
25 balancing operation and embodiments of the present invention enables
26 statistical multiplexing of the frames. But just because applying the claim

1 technique to a particular structural arrangement enables statistical
2 multiplexing does not mean that we should read that structural arrangement
3 into the claims. Patent Owner also argues that every embodiment includes
4 this structural arrangement that they seek to add to the claims.

5 But regardless of whether that is true, Federal Circuit case law tells us
6 that it's not proper to read structural limitations into the claims, even when
7 those structural features are the only disclosed embodiment. And as we've
8 stated in our briefing, the passages that Patent Owner recites do in the
9 specification contain no clear disavowal of claim scope and no expression of
10 manifest exclusion. And for these reasons, we think Patent Owner's
11 proposed construction should be rejected. And when we consider what the
12 claim actually recites, Bruckman does indeed teach two distinct selections,
13 one from a group of first links and one from a group of second links. Now,
14 if there's no further questions on the topic, I'll move on to my next topic,
15 which is on the term parallel. Were there any questions from the judges?

16 JUDGE DROESCH: I don't believe so at this time.

17 MR. CLEMENTS: Thank you, Your Honor. So, turning to slide 15,
18 we move on to our next topic, which is that Bruckman teaches links
19 arranged in parallel, as claimed. Turning to slide 16 now again, both
20 Bruckman and the 740 Patent relate to link aggregation. Bruckman
21 describes link aggregation as a technique by which a group of parallel
22 physical links between two endpoints in a data network can be joined
23 together into a single logical link. Bruckman also explained that the link
24 aggregation function applies not just to the links, but to the traces as well.
25 So both the links and traces in Bruckman are part of the link aggregation
26 group, which means they are parallel links. Turning to slide 17, we can see

1 here that the connections between the core network and the user node are in
2 parallel. The ports blue lines are in parallel, and the traces green lines are in
3 parallel. Turning to slide 18, we can see here also in this combination of
4 figure one and figure two, that there are both traces and port links that are in
5 parallel between the core network and the user node, and particularly the
6 port links from system b are part of link aggregation group 36, which splits
7 the two different line cards as shown here, and each of those line cards
8 includes at least two traces extending to the communication network on the
9 left. So the links and the traces that connect the communication network to
10 the user node are in parallel.

11 Turning to slide 19, Patent Owner attempts to distinguish Bruckman
12 by relying on a narrow interpretation of the word parallel. According to
13 Patent Owner, for links to be in parallel, they must terminate at the same
14 relevant endpoints. So what do they mean by relevant endpoints? Well,
15 they explain in this quote here, they say that in the context of the 740 Patent,
16 the relevant endpoints are those which would enable a principal innovation
17 in the network element architecture disclosed in the 740 Patent. In
18 particular, the lack of a pre-assigned relationship between the second links
19 that connect the network to the interface module and the first links that
20 connect the interface module to a user. But our position is that the plain and
21 ordinary meaning is sufficient. There is no need for the Board to adopt
22 Patent Owner's addition of relevant endpoints, as well as this additional
23 language here into the claim term. This only adds ambiguity because it is
24 not clear what would count as a relevant endpoint or not. For example, if we
25 go back to slide 18 and we look at figure two on the left, Patent Owner
26 argues that the relevant endpoints in Bruckman are the concentrators and not

1 the line cards. But the concentrators are not claimed. Instead, the line cards
2 are what resided in the claims. So the point I'm trying to make here is that
3 adding this requirement of the links ending in relevant endpoints nearly adds
4 ambiguity, not clarity.

5 JUDGE DOUGAL: Counsel, I'm a little confused. So on your
6 original definition that you point to, on slide 16, you point to this idea that
7 parallel physical links between two endpoints give you this aggregate. And I
8 understand, looking at your figures, you explain that the system is in parallel
9 because it goes from a communication network, this is slide 17, to a network
10 node. But I guess I don't understand how you're going from these two
11 endpoints to all of a sudden saying that necessarily anything in the middle,
12 independent of where it's going, is in parallel with other things in the middle.
13 I'm confused on how you're getting, how you're jumping between those two
14 points.

15 MR. CLEMENTS: Okay, so if we look at slide 17, we see that there
16 are multiple traces shown in green on the left side, and multiple links. And
17 these lines are all used to communicate data between the network node and
18 the communication network. And Bruckman describes both of these groups
19 as part of a link aggregation group. And it also describes link aggregation
20 groups as a connection of parallel links. So, Bruckman describes these links
21 and these traces as parallel in that sense. And we think that makes sense
22 because the whole point of a link aggregation group is to aggregate multiple
23 parallel links between two destinations. Even though these, even though
24 they may go through separate line cards, these traces are still in parallel
25 because they're ultimately communicating data between the same two
26 destinations, like the communication network and the network node.

1 JUDGE DOUGAL: But I mean, the claim says a second group of
2 second physical links are arranged in parallel. So you're saying that that
3 shouldn't be read, that we should read that to be in parallel, kind of in the
4 broad scheme of the aggregate links between the first group and the second
5 group, how they're all connected. Those are all in parallel, not the group
6 itself. Like the group two doesn't have to be in parallel. It's the fact that
7 group two combined with group one is in parallel when it's connected to
8 these end nodes. Is that what you're saying?

9 MR. CLEMENTS: I wouldn't say that. I wouldn't say that group two
10 is not in parallel. We still think that the traces are in parallel. If we look, for
11 example, at figure two, we have at least two traces going to a particular line
12 card. And so, the way that claim one, for example, recites this particular
13 structure, it says that we have -- just going to go to claim language real
14 quick. We have coupling each of the one or more interface modules. So
15 there can be a plurality of interface modules. We're coupling those to a
16 communication network. That's one aspect of it. The second aspect is how
17 are we going to do that? We're going to use a second group of second
18 physical links arranged in parallel. So, all of these line cards together are all
19 connected to this communication network. And we believe that they're at
20 least in parallel because they're all part of transmitting data between the
21 communication network and to the user node.

22 In addition, when we look at figure two, we can see that there are at
23 least two traces that go to the same line card. And so even if we take
24 parallel to mean it has to go to the same line card, Bruckman still at least
25 teaches that. But we think that it's parallel primarily because the prior art
26 describes it as parallel. Again, the prior art, Bruckman describes all these

1 traces as part of a link aggregation group. And what's a link aggregation
2 group? Well, it's a group of parallel lines because it's used to basically
3 combine multiple parallel lines into a single logical link. Does that help
4 answer your question, Your Honor?

5 JUDGE DOUGAL: I guess. Still not totally see how you're getting
6 there, but you can move on.

7 MR. CLEMENTS: And if we turn to slide 20, Patent Owner's
8 position contradicts their own specification. As we see here in Figure 2, link
9 aggregation group 68 includes parallel lines that terminate at different line
10 cards, but they're still part of a link aggregation group. And the 740 Patent,
11 like Bruckman, describes link aggregation groups as a group of parallel links
12 that are combined into a single logical link. So, we think that even the 740
13 Patent itself includes this understanding of parallel links. And again, this
14 makes sense because the whole point of link aggregation is to distribute the
15 load between multiple parallel paths to the same destinations. If the paths
16 were going somewhere completely different, not to the same destination, I
17 could see why that's not in parallel, but here, these traces are all used to
18 transmit data to the same destination, and for that reason at least, they're in
19 parallel. In addition, because the prior art describes it as parallel.

20 JUDGE DOUGAL: Counsel, on this point, again, is there anywhere
21 in the, the patent that calls out the two separate groups from line card one
22 and line card two in parallel? Like I found, you know, that it talks about it in
23 the aggregate, it talks about the two endpoints, but I didn't see anything that
24 specifically called out the links from line card one and line card two to the
25 76 as being in parallel, like the actual, just those links themselves, not in the
26 aggregate of, you know, the links 58 combined with 24. Is there anything

1 you can point me to that says the Spec. that calls those out specifically as
2 being parallel?

3 MR. CLEMENTS: And to be clear, Your Honor, you're talking about
4 in the 740 Patent where it describes in this parallel. So, what I would say is
5 that the 740 Patent is similar to Bruckman in the sense that it describes these
6 as all being part of a link aggregation group. And it also describes link
7 aggregation groups as being in parallel. And then if we, of course, when we
8 look at the claims of the 740 Patent itself, it does recite this first, or the
9 second group, which is referring to line 68, is in parallel. So, the claims also
10 describe in the 740 Patent these links as being in parallel.

11 JUDGE DOUGAL: The claim, claims, talk about a first group and a
12 second group. And so, you can read that as line card, the group plurality
13 being just the links between line card one and 76. I guess I'm not seeing
14 where you have to get, where you're saying that the Spec of the 740 Patent
15 teaches that line card one and line card two, just those links by themselves,
16 not in aggregate with other links or traces, are in parallel.

17 MR. CLEMENTS: Again, I would just point to the fact that they're
18 all part of link aggregation group 68, and it describes link aggregation
19 groups as a set of parallel links. So if link, if 68 is a link aggregation group,
20 and it describes link aggregation groups as having parallel lines, which is
21 also consistent with the very purpose of a link aggregation group, is that it's
22 transmitting data that is all going to the same endpoint or same ultimate
23 destination, it's aggregating it. And so, they're parallel in that sense that
24 there are different options that you have to go towards your destination. Are
25 there any further questions on the parallel topic?

1 If not, I will move on to the next topic. So, turning to slide 21,
2 Bruckman teaches the claimed selecting in a single computation. Turning to
3 slide 22, as we explained in the petition the 740 Patent describes a multi-step
4 process for determining the mapping. This multi-step process includes
5 determining a hash size, calculating a hashing key, and then determining the
6 mapping by applying a hashing function. And the result of this hashing or
7 mapping function is a value that is used to determine the selection from two
8 different groups. And so, as we stated in the petition, the single value or
9 processing final step that produces that single value are examples of a single
10 computation. And I don't believe Patent Owner has disputed this
11 interpretation. So, turning to slide 23, Bruckman teaches using a single
12 computation that results in two selections. Bruckman describes a distributor
13 that applies a predetermined hash function to the header information and this
14 hash function is shown on the right here. And as we can see that final step
15 in the piece of the code is a single computation and that results in two
16 selections.

17 Turning to slide 24 and we touched on this briefly earlier, the reason
18 that the single computation selects links from two separate groups is that by
19 determining which link transmits the packet informs which trace will
20 transmit the packet. In other words, due to Bruckman's structure, selecting
21 link A shown in blue from amongst all the links means that we will also
22 select trace A, also shown in blue, from amongst all the traces. Accordingly,
23 as we stated in the petition, selection of a link also determines which trace
24 will transmit the frame. And as we discussed earlier, there are indeed two
25 selections here. Bruckman selects a trace from amongst a group of traces
26 and Bruckman selects the link from amongst several links. Because both of

1 these selections are based on that single hash computation or single hash
2 result, these two selections are done in a single computation as claimed.

3 Turning to slide 25, the Petition presented an additional ground to
4 further show the obviousness of using a single computation that results in
5 two selections. The Basso reference describes a similar arrangement to what
6 we see in Bruckman. There are a number of transmission lines extending
7 between a communication network and a network node and as we see here,
8 there are the set of first level lines shown in blue which extend between the
9 blades and the network node, and these are analogous to Bruckman's ports.

10 Turning to slide 26, Basso describes using a single hash value to select a
11 blade port combination. In other words, the single hash value results in a
12 first selection of one of the first level lines connected to the ports on the
13 network node and a second selection of one of the second level lines
14 connected to blades. Thus, the single hash calculation or hash is used to
15 select a blade port combination. So, a selection of the link from the blade
16 group and a selection of the link from the port group. So Basso provides
17 additional evidence that it was known to select lines from two separate
18 groups using a single computation.

19 Turning to slide 27 now, with respect to the single computation
20 limitation, Patent Owner has agreed with the Board's institution decision in
21 which they stated that there does not appear to be a temporal requirement to
22 the claims, and Patent Owner has acknowledged that the claims clearly
23 allow for both selections to be performed at the same time. Patent Owner
24 states, however, that there must be two distinct selections. Now, we don't
25 dispute that the single hash calculation or hash value must result in two
26 selections, because that's what the claim says. But the fact that the claims

1 require two distinct selections does not distinguish Bruckman. And this is
2 because Bruckman, as we have discussed, also teaches a single hash
3 computation that results in two selections. Turning to slide 28, Patent
4 Owner seem to be making contradictory statements. While they agree that
5 the claims allow for simultaneous selection, they also state that the claims
6 should be interpreted to describe mapping operations in sequence. And as
7 we discussed earlier, their argument about how if you don't have a choice on
8 the second leg of the journey, then there can't be another selection. That
9 argument implies that there's a sequence. It implies that you select one leg
10 first and then after that select another one. And again, we think that's
11 improper.

12 Our position is that the claims do not require selections to be made in
13 sequence. Instead, they must be done in a single computation. So regardless
14 of Patent Owner's statements, Bruckman teaches what is claimed.
15 Bruckman uses a single hash or a single value that results in two selections
16 from two groups as claimed. Turning to slide 29. In summary, Bruckman
17 teaches the same arrangement that is claimed, which is two groups of links
18 between a communication network and a user node. Bruckman also teaches
19 the same selection process that is claimed, a single computation that selects
20 two links from two groups. So, for the reasons discussed today, Petitioner
21 respectfully requests that the Board find all challenged claims unpatentable.
22 And if there are no further questions, Your Honors, I will reserve the
23 remaining of my time for rebuttal.

24 JUDGE DROESCH: It doesn't look like there are any questions.
25 Please, counsel for Patent Owner, would you like to begin?

1 MR. STAMATOPOULOS: Certainly, Your Honors. So before I dive
2 into the merits, I'd just like to mention that the 740 Patent at issue in this
3 case is directed to methods and apparatuses used in communication
4 networks. Very few of the claims actually recite link aggregation. Link
5 aggregation, the Patent acknowledges, was a known technique. It doesn't
6 purport to have invented link aggregation. That's relevant, I think, to some
7 of the arguments that were made by opposing counsel. I'd also like to
8 mention that the 740 Patent is the product of significant research and
9 development efforts by the original assignee, Orckit Communications, also
10 known as Orckit Corrigen, which was a company that operated in Israel in
11 the 1990s and early 2000's. And what's relevant about that is that or
12 communications or Orckit Corrigen was also the original assignee of the
13 Bruckman Patent, which is the principal reference that Petitioner has offered
14 in this case.

15 Now, I won't tire you with more details about the 740 Patent. I'd like
16 to dive into the merits. I'll flip the order a little bit with respect to what
17 opposing counsel did. I'd like to start from the arranged in parallel limitation
18 and address some of the points that Petitioner made. And the primary
19 support for Petitioner's argument that the second links are arranged in
20 parallel is that they are part of a link aggregation group, and that because
21 link aggregation is described in the Bruckman as well as the 740 Patent as a
22 technique through which parallel physical links can be aggregated, therefore,
23 it follows that the second links in Bruckman or the truths of Bruckman are
24 also arranged in parallel. That is not, that does not support Petitioner's
25 argument. And if you turn to Patent Owner's demonstratives, slide 32, you
26 will see testimony from Petitioner's expert, Dr. Houh, where I'm asking Dr.

1 Houh about this statement, which is verbatim the same statement about link
2 aggregation that you will find in the 740 Patent. If that statement is a
3 comprehensive definition of link aggregation, he says it's just a statement
4 that he wouldn't characterize as a definition. I asked him again, do you
5 consider the statement for Bruckman to be a definition of link aggregation?
6 Dr. Houh says it's a description. It's an example of link aggregation.

7 So, as Your Honors alluded to in your questions, this description of
8 link aggregation does not imply that every link that can be used in a link
9 aggregation group necessarily needs to be in parallel with every other link in
10 the link aggregation group. And further to that, Dr. Houh also testified in his
11 deposition that links that have different endpoints are not considered to be in
12 parallel. And if you go to Patent Owner's demonstrative exhibit, slide 39,
13 you'll see that I'm asking Dr. Houh about figure two of the 740 Patent which
14 you will find on slide 38, as well as other places in Patent Owner's
15 demonstrative exhibits. And you'll see the questions here on slide 39. That's
16 the relevant part. If these backplane traces had different starting and ending
17 points, will that suggest to you that they are parallel traces? Dr. Houh
18 responds, they can still be parallel as laid out on the board geometrically.
19 But if the communications are going to different places, I don't think that's
20 what is thought of as parallel links or traces. Question, and when you say
21 that is thought of, you mean by a person of ordinary skill in the art?
22 Response, yes.

23 Now, Petitioners tried to explain away this testimony by Dr. Houh as
24 being a testimony relating to a hypothetical. Respectfully, Your Honors, this
25 is not a hypothetical. I'm asking Dr. Houh in cross examination about his
26 obviousness analysis. I'm asking him about a specific embodiment in the

1 740 Patent. I'm asking him about a specific term that's at issue in the claims.
2 And he gives here conclusive testimony that if traces are gone with the line,
3 if traces are going to different places, that's not what's thought of as in
4 parallel. Now, Petitioner has also made the point that LAG group 68 is
5 inconsistent with our application of the plain and ordinary meaning of
6 arranged in parallel. By the way, we're not proposing a construction what
7 we're saying here, and Mr. Gomez, Patent Owners expert, has provided
8 testimony as to how a person of ordinary skill in the art would understand
9 arrangement in parallel. We're saying that a person of ordinary skill in the
10 art would look at these figures, would look at these connections, and in so
11 far as they have the same endpoints, the same relevant endpoints, because
12 you need to look at these figures at the right level of abstraction, something
13 that Dr. Houh also testified, a person of ordinary skill in the art would find
14 that internal backplane traces, like the ones connecting the line cards to the
15 multiplexer and from there to the network, those have the same endpoints.
16 Those have the same relevant endpoints, they have the same endpoints. And
17 if you look at external connections, the relevant endpoints change. It's the
18 device that's marked by box 32, the network apparatus that's marked by box
19 32, and potentially external nodes to which that device connects.

20 So I don't know if you have any questions with respect to Petitioner's
21 arguments, but you'll also see or respond to Petitioner's arguments, but you
22 will also see that in every single embodiment, every single embodiment,
23 figures one, figure two, three and five, you will see that each and every one
24 of the interface modules in these embodiments is connected to back point
25 traces that all have the same endpoints. There's no doubt about that. So, if
26 you take that plus the fact that link aggregation, the description of link

1 aggregation given in the 740 Patent and given in Bruckman is not a
2 definition, it's only an exemplary description. The entire case of Petitioner
3 collapses with respect to the arranged and parallel limitation. What's
4 important about that is that the requirement that the second links or back
5 plane traces need to be arranged in parallel is present in every single one of
6 the independent claims. In other words, if the Board finds that arranged in
7 parallel is not disclosed in Bruckman, then that defeats the entirety of
8 Petitioner's case.

9 Now, there was this argument that Petitioner raised that you can
10 actually look instead of looking at the concentrators, and I'll direct your
11 attention to Petitioners slide eleven in Petitioners demonstrative exhibits. If
12 you take a look at instead of looking at the concentrators at the relevant
13 endpoints, but you look at the line card instead, you'll see that there's two
14 traces ending up at the same line card. If you actually adopt that reading,
15 you can satisfy the claim. Here's why, and I'll take Your Honors to claim
16 one, just to take a look at the claim language. For example, on slide 27,
17 you'll see that there's a first requirement of coupling a network node to one
18 or more user interface modules using a first group of physical links. Those
19 are the links 30. There's a second requirement of coupling an interface
20 module through one or more through one, sorry, through a second group of
21 second physical links arranged in parallel. And then there's a requirement
22 sending the data frame over the selected first and second physical links.
23 That's key. If you go back to Bruckman and you go back to the
24 demonstrative eleven of Petitioners demonstrative exhibits, you will see that
25 if you select, let's say, one of the links 30 on line card one as your first links,
26 and the trace that ends in the other concentrator on the same line card, you

1 can't actually transmit a data frame because those two links don't
2 communicate. So, the relevant endpoints notwithstanding that Bruckman
3 called this box here a line card, the relevant endpoints aren't the line cards,
4 they're the concentrators that connect the different the traces to the different
5 links.

6 And in fact, Your Honors, you don't even need to take my word for it.
7 All you need to do is go back to slide ten Petitioner's demonstrative exhibits,
8 and you can see that what Petitioner has called out as the interface modules
9 is actually not the concentrators here. Bruckman called concentrators line
10 cards. Bruckman doesn't really care about whether it calls a particular box, a
11 concentrator or a line card. What's relevant here is that there is a single trace
12 always connecting the interface module to a first group of links. That's the
13 key. Now with that I would like to move on to, unless you have questions
14 about the parallel arrangement, which I think is well covered in our brief
15 papers, I'd like to move on to the selection limitation. I'd also like to note
16 before doing that, that again, the Patent Owner has not proposed here a
17 construction of arranged in parallel as links that share the same relevant or
18 have the same relevant endpoints. We're just saying that a person of
19 ordinary skill in the art, that's how they would understand the arrangement in
20 parallel of the second links. And we've also included, our experts also
21 included evidence from parallel, from, sorry, from circuitry, which is
22 foundational to electrical engineering. By the way, electrical engineering is
23 how Petitioner has defined a relevant level of skill in the art. So, I think it's
24 a little bit implausible to try to attack Mr. Gomez for importing information
25 from circuitry and electrical engineering into the context or the lens through

1 which a person of ordinary skill in the art would interpret these claims. In
2 any event, I'll move on to the selection limitation.

3 So there's two species of the selection limitation. Some of the claims
4 require, like claim one, require that there be two selections formed in a
5 single computation, and there's other claims that actually don't contain the
6 single computation requirement. And I'd like to address these separately.
7 So starting from the claims that contain the single computation requirements,
8 first of all, Your Honors, there's no dispute. Petitioner agrees with us that
9 two selections are required. The dispute as after whether, Bruckman, which
10 discloses a first selection and then that first selection determines the second
11 link actually meets the claims that require two selections. Respectfully,
12 Your Honors, Bruckman does not meet that requirement. And the reason
13 Bruckman doesn't meet that requirement is that again, consistent with Dr.
14 Houh's testimony. Dr. Houh, Petitioner's expert's testimony. You will see
15 that when you have, and I'll pull up his relevant testimony. When you have
16 only one potential path, you don't really have a choice. And I'll invite your
17 attention to slides 54 and 55, where I asked Dr. Houh, do you need a similar
18 mechanism, a mechanism for selection when there is only one physical link
19 available for a connection between two endpoints? What is the context of
20 this question? The context of this question, Your Honors, is that Petitioner
21 here has said once you select one of the links 30 in Bruckman that
22 determines the trace, it doesn't simply inform. Counsel earlier used the word
23 informs the trace. It doesn't inform the trace, it determines the trace. And
24 that is from Petitioner's papers. Once you've determined the trace on the
25 basis of the first selection, you only have one path available.

1 And so, I'm asking Dr. Houh, do you need a similar mechanism when
2 there is only one physical link available for a connection between two
3 endpoints? I don't think it would be necessary in such a case. You could
4 certainly have a distributor that distributes among one link. Why would it
5 not be necessary? If there's one path, you don't really have a choice. There's
6 one physical link between, you know, the other element, you don't really
7 have a choice. That's the case in Bruckman. With all due respect, Your
8 Honors, I believe selecting and choosing, selection and choice are
9 synonymous in our language. You heard it from Dr. Houh, you don't have a
10 choice when you only have one path. That's what's going on in Bruckman.
11 The link 30 determines trace 52 and that means there's no way to have a
12 second selection.

13 Now, there's been a lot of talk about a temporal limitation. There's no
14 temporal limitation. In our papers we pointed out that there's some
15 embodiments in the specification where there's actually a staggered or a two-
16 step aggregation process. That's the specification. We completely agree, in
17 case it was unclear that the claims do not require or impose any type of
18 temporal limitation. Regardless of that, whether you're making the first
19 selection first or the second selection second, or in any order or
20 simultaneously, you still need two selections. There's no two selections
21 here. In Bruckman, when I say there's no two selections here, I mean
22 Bruckman does not disclose two selections. And I'll invite your attention to
23 slide 60 of Patent Owner's demonstratives. This is the single computation of
24 Bruckman. So first of all, it's unremarkable that Bruckman and Basso
25 disclose a computation. That's how you make a selection. But the plans
26 don't just require a single computation, they require a single computation to

1 make two selections, not one, two. And Petitioner says here in their papers,
2 Bruckman provides limited description of how the hash computation is used
3 to select a trace. That's true. We agree. The reason that's the case is
4 because there is no second selection done in Bruckman. There's nothing to
5 compute. The selection of the first link determines the trace, and there's
6 only one trace to choose from. There's no selection, and that's why
7 Bruckman provides a limited description.

8 And you can see that the foundation for our argument is actually in
9 the next sentence. A person of ordinary skill in the art would have
10 recognized that Bruckman's selection of a link 30 also determines which
11 trace will transmit the data. So Bruckman doesn't disclose two selections,
12 and it certainly doesn't disclose using a single computation to perform those
13 two selections. Although it does, and we agree to this, it discloses a
14 computation. So, moving on to slide 61 of Patent Owner's demonstrative
15 exhibits, Petitioner points to Basso. And really what Petitioner points to in
16 Basso because Basso has effectively the same architecture in Bruckman.
17 And let me walk you through that in a second. Petitioner points to a phrase
18 in Basso about a selection of a blade for combination. That's illusory. It
19 looks like there's a selection of two things, but there's only a selection of
20 one. And let me tell you why. The blades and the ports are actually
21 connected to one another. The ports on the blades, you can see that on slide
22 61. Once you select the port, you're set in terms of what blade the data is
23 traveling through. It's the same configuration as Bruckman. The ports in
24 Basso are analogous to the links in Bruckman, and the blades in Basso are
25 analogous to the traces in Bruckman. You don't have a choice. Beyond that,
26 Your Honors, the other issue is that, as we've explained in our papers, the

1 module, the component that actually makes the port selection in Basso is the
2 network processor. The network processor, Your Honors, also resides on
3 the blades. So by the time you're on it, the network processor decides which
4 port to transmit data through. The data has already arrived on the blade.
5 The blade has already been decided.

6 Now, there's an argument in Petitioner's papers that there's no
7 limitation about post processing of data. We agree there's no limitation on
8 post processing of data, but there's a requirement for two selections, and it is
9 impossible physically for me to decide where I am going once I'm already
10 there. This is what's happening with the data in Basso. Data has already
11 arrived on the blade because it's on the network processor, and it's only then
12 that the network processor decides which port to transmit the data through.
13 Now, we agree that Basso refers to a blade port combination. That's
14 nomenclature. That could be the naming of these ports in the device. That
15 doesn't mean there's actually two selections, however, and there's no
16 explanation by Petitioner as to why or how. More importantly, you could
17 have two selections. You could have a selection of a blade and a port if the
18 packet for which a board is being selected has already arrived on the blade.

19 I'd like to touch briefly upon the requirement for no fixed assignment
20 between ports and second links or first links and second links. And I'd like
21 to point out, just to be very, very clear, that because there was an argument
22 in Petitioners papers about this, that if you go to slide 29 of Patent Owner's
23 demonstrative exhibits, there was an argument that this construction is
24 inconsistent with line card N because in line card N you have one port, 24
25 have multiple traces, so all of the traces correspond to a single port.
26 Respectfully, that's not what our construction addresses. This is consistent

1 with our construction. The reason it's consistent with our construction is
2 because the construction we're proposing, consistent with the claims, is that
3 there be no fixed assignment of any port to any particular trace. And you
4 can see that line card N is one where port 24 corresponds to multiple
5 different traces 56, it doesn't go both ways. That's important. The reason
6 that's important is because this device, 32, network element 32, as
7 Petitioner's counsel also mentioned it, connects users to an up -- downstream
8 users to an upstream network.

9 In the context of the downstream connection, you could have a
10 selection of any one of these ports. In the context, you can have a selection
11 of any one of these ports and you would also need to select the second link,
12 which is internal. And the internal selection is actually informed. It is
13 informed the selection of a port, but it cannot be determined by the selection
14 of a port. And that's why you have this asymmetry with respect to the
15 wherein clause or the wherein structural limitation that Patent Owner
16 proposes here, where it's only the ports that cannot be fixably assigned to
17 any particular trace, but the traces may, consistent with the claims and
18 consistent with the Specification, be assigned to a single port. We don't
19 dispute that. That second point. In any event, let me pause there, see if
20 there are any questions. If not, I'd briefly like to address one more point
21 which has to do with claims 14, 15, 29 and 30.

22 JUDGE DROESCH: I don't believe there's any questions right now.

23 MR. STAMATOPOULOS: Fair to all, Your Honor. So I'll move on
24 to claim 15 and I'll invite questionst. Oh, sorry.

25 JUDGE DROESCH: Which side are you working off of, counsel?
26 Which slide are you working off of?

1 MR. STAMATOPOULOS: 68. And here you will see claim 15.
2 Claim 15 is different from claim one. And how is it different? It's different
3 in two material respects. First of all, it does not impose a requirement that
4 ports be arranged in parallel, or first links be arranged in parallel. The
5 parallel arrangement limitation applies only with respect to the second links,
6 which the Patent often calls backplane traces. And you have -- and there's a
7 second distinction between claim 15 and 14 and 29 and 30 and claim one.
8 And that is that the selection is only done with respect to the backplane
9 trace. So, you don't have the single computation to selection requirement,
10 but you still have a requirement for selection from a group of backplane
11 traces that need to be connected to a particular interface module. So, the
12 same logic otherwise applies. You still need to send the data frame from a
13 particular port through a particular trace that's connected to the same
14 interface module as the port. But you don't need to select the port according
15 to this claim. And then you need to select a backplane trace from two or
16 more backplane traces. You'll see in Bruckman, you don't have two or more
17 backplane traces connected to the concentrators. And we already talked
18 about why the concentrators are the endpoint we ought to be looking at as
19 opposed to the line card. And the other point that was made in our papers is
20 that once you have the selection of a link 30, you don't have a selection from
21 the two or more backplane traces for pretty much the same reasons that we
22 discussed with respect to claiming. So with that, Your Honors, and unless
23 there are any questions, I'll reserve time.

24 JUDGE DROESCH: Counsel, I did have one question. Maybe you
25 can provide some clarification. Can you explain why we should be looking

1 at the concentrators rather than the line cards themselves for the parallel
2 argument, the backplane traces arranged in parallel?

3 MR. STAMATOPOULOS: Absolutely, Your Honor. So I'd like to
4 invite your attention again to slide 44 of claim one. And I'll walk you
5 through the steps. So you have coupling a network node to one or more
6 interface modules using a first group of physical links. So you've got your
7 first physical links. And if you go to slide 45, Petitioner has mapped those
8 onto links 30 in Bruckman. Then you get a coupling of the one or more
9 interface modules to a communication network using a second group of
10 physical links. Now, let's assume that instead of the concentrators, we were
11 to take line card in Bruckman line card one, which contains two
12 concentrators at the interface module. If Your Honor were to select trace B
13 as the second link and link A as the first link, then hold that thought, Your
14 Honor. If you go back to reclaim once it comes time to send the data frame,
15 we're talking about one data frame, over the selected first and second
16 physical links, you cannot perform the claim if you make that selection in
17 Bruckman. The reason you can't perform that claim, go back to Bruckman.
18 You'll see that there's no communication between link A and trace B. The
19 relevant interface module here is the concentrator, not the box drawn around
20 the two concentrators. And if you go to slide 46, sorry. If you go to slide
21 47, you will see Petitioner's annotated exhibit of Bruckman. Sorry,
22 annotated figure of Bruckman, where the interface modules are identified as
23 the boxes that connect to component 32 and from there to the core network
24 with one trace. And that's why the concentrators are where you need to look
25 at when you're determining the relevant endpoints. And if you do that, you'll

1 see that in Bruckman there are no two traces that have the same endpoints,
2 or internal endpoints for that matter.

3 JUDGE DROESCH: All right, thank you, counsel.

4 JUDGE ENGELS: Counsel, this is Judge Engels. I have a question.
5 So with your example on slide 45. If your example is understood, it would
6 be a selection of link A and trace B. Wouldn't that be two selections? Even
7 if it wouldn't work, doesn't, doesn't that suggest, though, that there is in fact
8 an option of selecting trace A and trace B?

9 MR. STAMATOPOULOS: Your Honor, respectfully, I don't. If I
10 said selection, that was, that was probably a slip of the tongue, I thought. I
11 was careful not to say selections. I don't think you have a selection. But the
12 issue here is that if you did have a selection in that example, you won't be
13 able to practice the claim. The only way to practice the claim is without a
14 selection. If I, having selected a link, one link, let's say line card one, I can't
15 really perform the claim. And therefore, what I mean by not really being
16 able to perform the claim, I can send the frame selected links. I'm doing air
17 quotes for the record. If I actually select a second link, to the extent that I
18 want to practice the claim by sending a trace with both sides of that path,
19 there's no selection to be made. There's one selection to be made of links A
20 with no selection as to a trace. Once you make a selection, you can't
21 practice the claim. That's my point. Does that make sense? Thank you.

22 JUDGE DROESCH: Okay, counsel, it doesn't look like there's any
23 other questions from my colleagues, so if you have anything else, let us
24 know. Otherwise, we can move on to Petitioner.

25 MR. STAMATOPOULOS: I'll reserve time. Thank you, Your
26 Honor.

1 JUDGE DROESCH: Okay, thank you. All right, council for
2 Petitioner, would you like to begin your sur rebuttal?

3 MR. CLEMENTS: Yes, thank you, Your Honor.

4 JUDGE DROESCH: And now you have 30 minutes.

5 MR. CLEMENTS: Thank you. So I want to note that Bruckman
6 teaches the same arrangement of links that are claimed in the 740 Patent.
7 And if we look at the language of the 740 Patent in column one, line ten, it
8 says that link aggregation is by which a group of parallel physical links
9 between two endpoints in the data network can be joined together into a
10 single logical link. And Bruckman gives a similar definition here. And
11 Patent Owner has argued that this is not a comprehensive definition of link
12 aggregation, but our ground here is an obviousness ground. And as we
13 argued in our Petition, it would be obvious for Bruckman's link traces to be
14 in parallel because they're part of a link aggregation group. Now, Patent
15 Owner has cited to the deposition of our expert to try to support their
16 position, but as we explained in our reply, Dr. Houh answered a hypothetical
17 question about if the links went to different places, would they be in
18 parallel? In Bruckman, the traces do not go to different places. And Dr.
19 Houh further explained that, well, at that level it's a different termination,
20 but at the level of the line card you have parallel links, and at the level of the
21 cluster of line cards, there's parallelism between that as well.

22 Now, Patent Owner's pointed to various portions of their specification
23 to show that they have two or more backplane traces per line card. And
24 they've noted that the same thing is in claims 14 and 15, that the language
25 there is different. It does recite two or more backplane traces per line card.
26 And in our petition, we addressed this on page 67. If we look at figure two

1 of Bruckman, we can see that Bruckman does indeed describe two or more
2 backplane traces per line card. The fact that the traces go to different
3 concentrators within the line card is irrelevant because the concentrators are
4 nowhere in the claim language. Patent Owner argues that parallel links must
5 terminate at relevant endpoints. But again, that adds ambiguity rather than
6 clarity to the claim language. They state that the relevant endpoints in the
7 740 Patent are the line cards and the MUX 44. But the MUX 44 is also
8 nowhere in the claims. The claims require that the traces connect the line
9 cards to a communication network. So it is unclear why we should consider
10 MUX as the relevant endpoint in the 740 Patent. And again, because the
11 traces and links in Bruckman are part of a link aggregation group, and
12 because Bruckman describes those as parallel links, it would be obvious for
13 these links and traces to be in parallel.

14 Now, I'll touch briefly on the single computation if there's no further
15 questions on the parallel issue. So, referring to the single computation
16 limitation, again, Patent Owners arguments imply that there's a sequence to
17 things. They imply that if you select the link, then afterwards there's no
18 longer a choice as to which of all the available traces to select from. But
19 again, we think that the claims don't have that temporal requirement, they
20 don't imply that sequence. And so, the claims allow for simultaneous
21 selection. And when you have simultaneous selection, you still need to
22 select a trace from all available traces and a link from all available links.
23 And if there are no further questions, Your Honors, I will yield the
24 remainder of my time.

25 JUDGE DROESCH: It does not look like there are any additional
26 questions from my colleagues at this point in time.

1 MR. CLEMENTS: Thank you, Your Honors.

2 JUDGE DROESCH: Okay, counsel for Patent Owner, it looks like
3 you may begin your rebuttal.

4 MR. STAMATOPOULOS: Do I have 30 minutes as well, Your
5 Honor?

6 JUDGE DROESCH: Yes, you do.

7 MR. STAMATOPOULOS: Okay, I don't think I'll need 30 minutes,
8 just to be clear. So just a couple points. Starting from the relevant
9 endpoints, we have not proposed a construction. We're just saying that a
10 person of ordinary skill in the art would look at the relevant endpoints. And
11 when you're looking at the internals of the device, the internals are internal
12 endpoints. When you're looking at external connections, you will adjust
13 your focus and the level at which you're approaching the issue of arranged in
14 parallel to external nodes. So just to be clear, we're not proposing a
15 construction. If we had a construction of look at the relevant endpoints, that
16 might be problematic. But this is not a construction. We're just saying a
17 person of ordinary skill in the art will look at the endpoints that are relevant.
18 Here's what the relevant endpoints are, depending on the context, and you
19 don't really need a construction, that's our point.

20 Now, I believe an argument made by counsel, if I follow that
21 argument correctly, it's that in Bruckman, the relevant endpoints are the line
22 cards. Because there's no mention of concentrators in the claims. Well, if
23 you look at the claims of the 740 Patent, there's no mention of a line card or
24 a concentrator what's mentioned is a user interface module. And if you go
25 back to the Petitioner's demonstratives in slide nine, you'll see that the
26 relevant, the interface modules have been identified as boxes that only have

1 one trace that goes to them. Whether you call it a concentrator, or a line
2 card doesn't really matter. What matters is what provides that connection
3 that enables practicing reclaim. And as we discussed earlier, if you don't
4 look at the concentrators, you can't really transmit data in Bruckman, let
5 alone practice the claim. You can't practice the claim regardless, but you
6 can't transmit data if you're trying to mix and match concentrators. The
7 other point that I just wanted to touch on briefly is this question of link
8 aggregation. And first of all, Your Honor --

9 JUDGE ENGELS: Sorry, before you get there. So we were looking,
10 just looking. You referenced figure one of Bruckman. Isn't Petitioner
11 relying on figure two of Bruckman, where they, which is on their slide
12 eleven, where the line card one has two traces 52 going from the line card?

13 MR. STAMATOPOULOS: Your Honor --

14 JUDGE ENGELS: So, I guess my question is, aren't they relying on
15 figure two? And if it is figure two, why does it have to be the concentrator?
16 I know you talked about this before, but just remind me again why it has to
17 be the concentrator and why it can't be the line card?

18 MR. STAMATOPOULOS: So, the answer to your first question is
19 that Petitioner is relying for different things on figure one and on figure two.
20 And you'll see that from Petitioner citation. If you go to slide eleven,
21 Petition at 37 relies on figure two for the identification of the two groups of
22 links. Petition at 39 on slide nine relies on figure one for the identification
23 of the interface modules. What you will see these two figures have in
24 common is that the modules that connect the first links to the second links
25 are only connected to the core network through a single trace 52. You'll see
26 that in figure one. You'll see that in figure eleven. The only argument that

1 were or not argument, your question relates to why do I need to look at the
2 concentrators when figure two has line cards that contain two concentrators?
3 And this is what I would like to touch on. I think that's the crux of your
4 question. But correct me if I'm wrong, just so that -- so, the reason for that,
5 Your Honor, is that because as we discussed earlier, if you select, if you look
6 at the line card without referring to the concentrators in figure two, and you
7 select the link three, say, from the topmost concentrator in line card one. If
8 you consider it possible to select the lowermost trace, which we submit is
9 not possible, that's not what the claims contemplate. But let's say you
10 wanted to make that selection, for whatever reason, you would not be able to
11 transmit data because the topmost links do not communicate with the
12 bottommost trace.

13 Frames can't jump from one concentrator to the other. And so, if you
14 were to make that selection, or if that selection were possible, which it is not,
15 you wouldn't be able to practice the limitation in claim one, sending the
16 frame over the selected first and second physical links. And that's on seven,
17 slide seven of Petitioner, if you want to have a look at that. So that's the
18 reason why you'd need to look at the concentrators as the relevant interface
19 module. And that's actually supported by Petitioner's own identification of
20 modules that connect to only a single trace in figure one, is playing a little
21 bit fast and loose. Sorry, go ahead.

22 JUDGE ENGELS: Does that depend on us also determining that
23 selecting requires separately selecting the first link and the second link?

24 MR. STAMATOPOULOS: No, it doesn't. It's related because all of
25 these, this is in our papers, but I'm happy to go through it again. All of these
26 limitations, if you look at them, they operate together in tandem, so you have

1 these multiple traces that connect to an interface module. The reason you're
2 able to have a selection is because you have multiple traces going into the
3 same interface module. So that allows for two selections, and then the single
4 computation comes in to mitigate the complexity associated with those two
5 selections. And the patent actually disclaims. So Petitioner pointed to, in
6 slide 14, one passage in the patent where certain embodiments are
7 distinguished. Unlike some known network element configuration, this
8 contains a reference to statistical multiplexing. But there's actually another
9 passage in the patent that provides a disclaimer. And by the way, I think it's
10 in our papers, I know it's in our papers, that you don't need to have
11 unexpressed disavowal in the style of I disavow prior art. You can actually
12 disavow prior art by distinguishing against other elements that don't contain
13 prior art elements. I mean, that don't contain a particular feature, call them
14 conventional and what have you.

15 And if you go to slide 18 of our demonstratives, you will see that
16 there is here another passage where it says, as a result, there is no
17 preassigned relationship or connection between any given prior art and a
18 specific backplane trace, as in some conventional network elements. So
19 there's a clear disavowal here. It's calling prior art conventional, where there
20 is such a relationship. I don't see any way around that. And if you couple
21 that with the fact that Bruckman was the pen of the same assignee that I
22 think requires even greater force or Corrigent knew about Bruckman knew
23 when they made the statement here in the 740 Patent. And it's cited.
24 Bruckman's also cited in the 740 Patent. But in any event, I may have
25 veered away from your initial question, so I'm not sure if I've answered it. If
26 I haven't, I'm happy to take another shot.

1 JUDGE ENGELS: You're good. Thanks.

2 MR. STAMATOPOULOS: Thank you, Your Honor. Well, if there
3 are no other questions, I think that concludes our presentation.

4 JUDGE DROESCH: Thanks. We will take a ten-minute break, so
5 we'll go off the record right now.

6 (Whereupon, the proceedings at 2:12 p.m. were concluded.)

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