Case Nos. 2018-2338 (L), -2339, -2395, -2396

In the

United States Court of Appeals

for the

Federal Circuit

NETWORK-1 TECHNOLOGIES, INC.,
Plaintiff - Appellant

v.

HEWLETT-PACKARD COMPANY,
HEWLETT PACKARD ENTERPRISE COMPANY,
Defendants - Cross-Appellants

Appeal from a Decision of the United States District Court for the Eastern District of Texas,
Case Nos. 6:11-cv-00492-RWS-KNM c/w 6:13-cv-00072-RWS
Honorable Robert Schroeder, III, United States District Judge

RESPONSE AND REPLY BRIEF OF APPELLANT NETWORK-1 TECHNOLOGIES, INC.

GREGORY S. DOVEL
SEAN LUNER
RICHARD E. LYON, III
DOVEL & LUNER, LLP
201 Santa Monica Blvd., Suite 600
Santa Monica, California 90401
(310) 656-7066 Telephone
greg@dovel.com • sean@dovel.com
rick@dovel.com

Attorneys for Plaintiff-Appellant,
Network-1 Technologies, Inc.

May 15, 2019

CERTIFICATE OF INTEREST

Counsel for Appellant Network-1 Technologies, Inc. certifies the following:

1. The full name of every party or amicus represented by us is:

   Network-1 Technologies, Inc.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by us is:

   Network-1 Technologies, Inc.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of any party represented by us are:

   None.

4. The names of all law firms and the partners or associates that appeared for the party now represented by us in the trial court or are expected to appear in this court are:

   Dovel & Luner, LLP: Sean A. Luner, Gregory S. Dovel, Christin Cho, Jonas Jacobson, Rick Lyon, Jeff Eichmann, Julien Adams, Simon Franzini, Matthaeus Martino-Weinhardt (no longer with firm), and Kayvan Noroozi (no longer with firm);
   Ward, Smith & Hill, PLLC: T. John Ward, Jr., Claire Henry, Andrea Fair, and Wesley Hill;
   Nelson Bumgardner Albritton PC: Eric Albritton;
   MoloLamken: Jeffrey A. Lamken.

5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. *See* Fed. Cir. R. 47.4(a)(5) and 47.5(b). (The parties should attach continuation pages as necessary).

   None.

Date: May 15, 2019

Respectfully submitted,

/s/Gregory S. Dovel

Gregory S. Dovel
Sean A. Luner
Richard E. Lyon, III
DOVEL & LUNER, LLP
201 Santa Monica Boulevard, Suite 600
Santa Monica, CA 90401
(310) 656-7066

Attorneys for Plaintiff-Appellant Network-1 Technologies, Inc.

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Introduction

The judgment of non-infringement should be reversed. HP's entire argument hinges on importing limitations from the "preferred embodiment" that are not found in the actual claim language, and that contradict what the claims actually say. Contrary to HP's assertion, the '930 specification never uses "present invention" to describe the limitations—"begin to start up" and "DC"—that HP seeks to import. In fact, neither concept is even mentioned in the Summary of the Invention. Appx330.

HP's alternative argument for affirmance (based on "delivering … from" the main power source) was not adopted by the district court below, for good reason. Network-1 presented compelling evidence, which HP (inexplicably) ignores, that "the low level current in HP switches" is "delivered from the main power source to the access device." Appx2480-2481 (158:9-159:8); Appx1791-1795.

The judgment of no invalidity should be affirmed. The prior art patents asserted by HP at trial were known to HP when HP filed its IPR Petition, but HP elected to withhold them from HP's Petition for tactical reasons. Because the combination HP asserted at trial was a ground that HP "reasonably could have raised" during HP's IPR, HP's invalidity case was estopped as a matter of law. In addition, the judgment of no invalidity should be affirmed because HP's prior art combination was missing two essential claim elements, a "secondary power source" and a "low level current." In the alternative, Network-1 would be entitled

to a remand for a new trial on invalidity, because HP's obviousness case focused on inadmissible evidence (the Fisher System) that was highly prejudicial.

Statement of the Issues on Cross-Appeal

1. To establish its obviousness defense, HP needed to present substantial evidence that its asserted references collectively disclosed each element of the '930 claims. For one element ("secondary power source"), HP presented no evidence—none at all. For another ("low level current"), HP's own expert *admitted* that it was not disclosed. Should the judgment of no invalidity be affirmed?

2. Statutory estoppel applies to any ground not included in an IPR petition that the petitioner "reasonably could have raised" in that IPR; estoppel does not also require that the ground be one that "reasonably would have succeeded" before the PTAB. HP elected to file an IPR Petition that raised only grounds asserted in Avaya's already-instituted IPR, because HP concluded that adding other grounds would diminish HP's chances of succeeding before the PTAB. Was HP estopped from relitigating invalidity with an obviousness ground that HP knew about but, for tactical reasons, declined to raise in its IPR Petition?

3. A party is entitled to a new trial when a jury considers inadmissible evidence that was prejudicial to the party. The jury returned a verdict of obviousness after hearing witness testimony and argument focused primarily on the Fisher System. After trial, the district court ruled that the Fisher System was inadmissible because it was uncorroborated and was not prior art. HP does not

challenge this ruling on appeal. Is Network-1 entitled, in the alternative, to a new trial on invalidity?

Counter-Statement of the Case on Cross-Appeal

Although HP suggests that it presented two different invalidity theories at trial, "the only invalidity theory HP presented to the jury was obviousness based on the combination of 'the Fisher patents, the Fisher system, Woodmas, and Chang.'" Appx78 (quoting Appx2572 (63:15-17)); Appx9157-9158 (94:18-95:4); Appx2356 (34:4-9).

The centerpiece of that theory was the Fisher System. Network-1 objected to evidence of the Fisher System because the witness testimony was completely uncorroborated and because the purported system was not disclosed or in public use. Appx9521-9522; Appx9543; Appx9071 (8:2-14). But the district court overruled Network-1's objections. Appx9550; Appx9072 (9:4).

HP then presented "nearly 30 minutes of detailed testimony from Dr. Fisher" and a "thorough analysis of the actual Fisher System" from both Dr. Fisher and HP's invalidity expert, Dr. Neikirk. Appx9452; Appx9182-9209 (119:1-146:2); Appx2345-2346 (23:1-24:5). HP also relied on the Fisher System to fill a critical gap in its case, the missing "low level current." [1] HP presented (uncorroborated)

[1] HP's own expert admitted, "I could not find that element [low level current] in the art I used," and "I have one missing element and, hence, I cannot conclude that [the '930 patent] is obvious in my analysis because of that one missing element." Appx2372 (50:8-22); Appx2376 (54:7-13).

testimony from Dr. Fisher that his Fisher System taught the "low level current" detection method. Appx1527 (210:8-16); Appx2640 (131:5-18); Appx1520 (203:20-23); Appx9195-9196 (132:25-133:12); Appx9199-9200 (136:20-137:7). After hearing HP's extensive Fisher System evidence and argument, the jury returned a verdict of invalidity. Appx71.

After trial, the district court reversed course, ruling that "the Fisher system does not constitute prior art as a matter of law" because HP could not "corroborate … its key inventive features" or demonstrate that it "was ever in public use." Appx83. "HP is not challenging these rulings on appeal." HP-Brief 62, n.2.

The district court also ruled that, once the inadmissible Fisher System was removed from HP's obviousness combination, any invalidity ground based on the remaining references was foreclosed by estoppel as a result of HP's failed IPR Petition. Appx91. The district court found that HP was aware before it filed its Petition of any invalidity ground based on the Fisher, Woodmas, and Chang patents. Appx88-91. HP does not challenge that finding on appeal. Because this ground "reasonably could have been raised in the IPR," the district court concluded that "estoppel attaches." Appx91.

Having declared the Fisher System inadmissible and HP estopped from raising invalidity, the district court granted JMOL in favor of Network-1 on invalidity, and did not rule on Network-1's additional grounds for JMOL or its request for a conditional new trial. Appx91 (n.6). The additional JMOL grounds

included HP's failure to present admissible evidence that its asserted obviousness combination disclosed key claim elements, including "secondary power source" and "low level current." Appx9243-9251. The new trial grounds included the improper admission of the Fisher System; the verdict being against the great weight of the evidence; and HP's improper arguments that infected the jury's findings. Appx9260-9265.

Summary of Argument on Cross-Appeal

1. The district court's order granting JMOL of no invalidity can readily be affirmed because HP's asserted obviousness combination was missing two key claim elements and therefore failed as a matter of law.

All claims require a "secondary power source," which was construed by the district court as "a source of power" connected to provide power to the access device "using the data signaling pair" with "driving points" that were "physically separate from the driving points of the main power source." Appx9512. HP failed to submit *any* evidence that a "secondary power source" was disclosed in the asserted prior art.

In addition, all claims require a "low level current." HP's expert testified: "I could not find that [low level current] element in the art I used," and "I have one missing element and, hence, I cannot conclude that [the '930 patent] is obvious in my analysis because of that one missing element." Appx2372 (50:8-22); Appx2376 (54:7-13).

HP's obviousness combination failed as a matter of law.

2. If an *inter partes* review of a claim "results in a final written decision," the petitioner "may not assert ... in a civil action ... that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review." 35 U.S.C. § 315(e)(2). HP filed a petition for *inter partes* review that resulted in a final written decision against HP. Appx367; Appx398. When HP filed its petition, HP was aware of the Fisher Patents Ground. But HP concluded that any ground not already instituted in the then-pending Avaya IPR was unlikely to succeed before the PTAB. Accordingly, for tactical reasons, HP elected to withhold additional grounds from its Petition. The estoppel provision, however, does not contain the additional requirement that, for estoppel to attach, the ground must be one "the petitioner … reasonably could have raised *and that reasonably would have succeeded*." Because the Fisher Patents Ground was one that HP reasonably could have raised, but that HP elected to withhold, HP was estopped from presenting it in the district court.

3. If this Court does not affirm the district court's JMOL of no invalidity, then Network-1 is entitled to a new trial on invalidity. Under Rule 50, the district court was required to rule conditionally on Network-1's motion for new trial as to invalidity. Fed. R. Civ. P. 50(c). At minimum, Network-1 is entitled to a remand for the district court to rule on its motion.

Moreover, a party is entitled as a matter of law to a new trial if a verdict is supported by no evidence on a necessary element of a claim or defense. As noted above, HP failed to present any evidence that its asserted obviousness combination disclosed a "secondary power source."

In addition, the prejudice from HP's reliance on the (inadmissible) Fisher System was clear. The district court ruled post-trial that "the Fisher system does not constitute prior art as a matter of law" because HP lacked evidence "to corroborate … its key inventive features" and to demonstrate that it "was ever in public use." Appx83. "HP is not challenging these rulings on appeal." HP-Brief 62, n.2. And evidence of the inadmissible Fisher System was clearly prejudicial because it was the primary focus of HP's invalidity case. Accordingly, in the alternative, Network-1 is entitled to a new trial on invalidity.

4. HP erroneously argues that the reexamination of the claims improperly broadened the claims. Independent claim 6—which is the broadest asserted claim—was an original claim that was never amended in reexamination and, therefore, could not possibly have been broadened. Moreover, HP's argument focuses on the claim term "secondary power source." It is undisputed, however, that the scope of the district court's construction of "secondary power source" was the same before and after reexamination. There was no change in claim scope and, therefore, no broadening.

Reply Argument

I. HP's alternative argument for affirmance fails.

HP asserts that the erroneous claim constructions were harmless because Network-1 failed to present evidence that an "accused product meets the claim language '*delivering* a low level current *from* said main power source.'" HP-Brief 25-26 (HP's emphasis). But an erroneous construction "would be harmless only if a reasonable jury would have been required by the evidence to find non-infringement," i.e. if HP would have been entitled to JMOL of non-infringement. *Avid Tech. v. Harmonic, Inc.*, 812 F.3d 1040, 1047 (Fed. Cir. 2016); *Ecolab Inc. v. Paraclipse, Inc.*, 285 F.3d 1362, 1376 (Fed. Cir. 2002). The district court correctly declined to grant JMOL of non-infringement (Appx2497-2498), because Network-1 submitted more than substantial evidence on this element.

A. Network-1 presented substantial evidence to support a jury verdict of infringement for "delivering … from" a main power source.

HP asserts that Network-1 cannot "identify *any* evidence showing that any HP device delivers detection current from the 'main power source'" and that the "jurors *only* had HP's evidence." HP-Brief 28 (emphasis added). HP further asserts that "Network-1's expert did not testify that any accused HP product delivers detection current *from* the main power source" and that "[e]ven when

Network-1's counsel asked him directly … Dr. Knox would not answer" the question. HP-Brief 33 (HP's emphasis). HP's assertions are false.

HP ignores Dr. Knox's testimony (cited in Network-1's Brief at 67) that directly addressed the issue:

20	Q. Drawing this diagram, is this low level current
21	delivered from the main power source?
22	A. Absolutely.

Appx1790 (50:22-22);

16	Q. How does this compare to what the claim requires for
17	delivering this current from said main power source to the
18	access device over said data signaling pair?
19	A. It does exactly what's required.

Appx1791 (51:16-19);

6	Q. Is the low level current in HP switches delivered from
7	the main power source to the access device?
8	A. Yes, definitely.

Appx2480-2481(158:9-159:8).

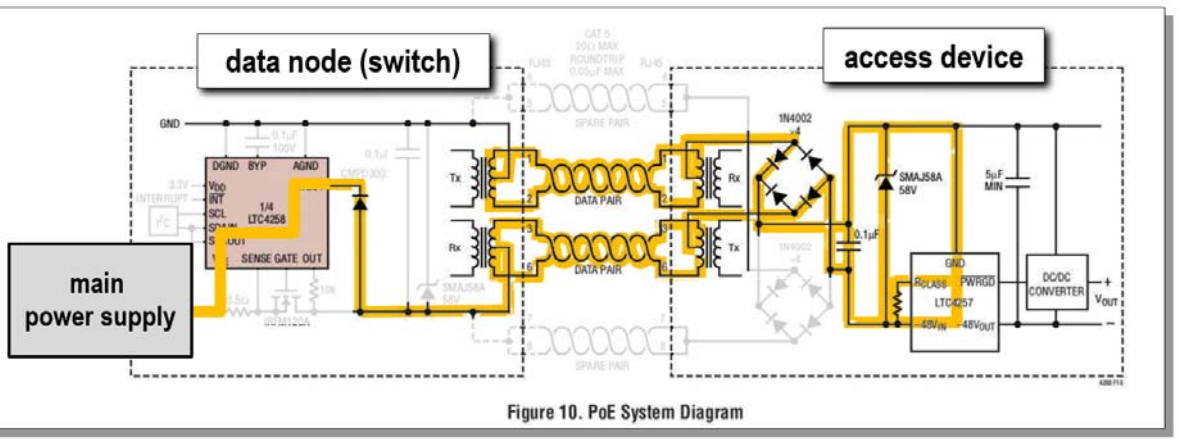


Figure 10. PoE System Diagram

P103-13

LTC4258 PoE System Diagram Internal Block Diagram

Using the above exhibit (Appx2724), Dr. Knox carefully detailed how HP's delivery of a low level current from the main power source matches the claim language:

> [I]n HP's switches … their detection current is delivered from the main power supply [as] shown here with this orange line … drawn on to P103…. This is the path taken by our detection current. It comes out of the main power supply … goes up through that internal circuitry inside that integrated circuit [and] goes out to our data signaling pair … to the access device. … Q. How does this compare to what the claim requires for delivering this current from said main power source to the access device over said data signaling pair? A. It does exactly what's required.

Appx1790-1791 (50:23-51:19). This testimony alone constitutes substantial evidence and is dispositive of the issue.

Moreover, Dr. Knox further testified that the way HP's switches deliver a low level current "from said main power source" is identical to the "preferred embodiment" of the '930 patent depicted "in Figure 1." Appx1791-1795 (51:20-52:23, 53:4-55:14). He explained that the claim language does not recite "delivering a low level current *directly* from the main power source to the access device" and does not require "a wire just going directly from one to the other." Appx1791-1792 (51:20-52:23). Instead, as in Figure 1, "the low level current also pass[es] through detection and control circuitry … for limiting just how high the level of that current is [and] we have the same thing here that we have in the HP switch." Appx1793-1795 (53:4-55:14). Just as in the '930 preferred embodiment, the PoE chip in HP's switches "restricts the current to a low level, but that current comes from that main power supply." Appx1964-1965 (41:17-42:18). In the preferred embodiment, "[w]e have a single main power source [16] … providing whatever power all this stuff needs.… But this resistor 26 is going to restrict the maximum amount of current that can flow through the access device to this low level current." Appx1966 (43:13-23). "[T]he PoE chip … limiting the current to a low level [in HP's products is] exactly how the preferred embodiment in the patent works." Appx1966 (43:4-17).

Because Dr. Knox's testimony constitutes substantial evidence that HP's accused products deliver a low level current "from said main power source," HP

was not entitled to JMOL, and HP cannot use this issue (which was *not* decided in HP's favor below) to dodge the erroneous claim constructions.

B. Whether HP presented contrary evidence is irrelevant; moreover, HP's irrelevant evidence was based on a claim construction rejected by the district court and not appealed.

HP asserts that testimony from its own witnesses "supports a finding that no HP product meets the claim requirement 'delivering a low level current from said main power source.'" HP-Brief 27-28; 33-34. But the question is not whether HP introduced some evidence a jury might accept; the question is whether Network-1 failed to present substantial evidence on that element. *Ecolab Inc. v. Paraclipse, Inc.*, 285 F.3d 1362, 1376 (Fed. Cir. 2002). HP's controverted evidence is irrelevant—and it is especially irrelevant since it applied an erroneous claim construction rejected by the district court.

HP's evidence was based on a construction requiring that the low level current be *directly* supplied by the main power source. HP-Brief 26-28; Appx1791-1792 (51:20-52:23). During claim construction, HP had argued that the "main power source" must not merely be the "source" of the low level current, but instead the current must be directly "supplied by" the main power source, i.e. with no intervening components between the main power source and the access device. Appx39. Network-1 countered that the claim should instead encompass its plain meaning. *Id*. The district court rejected HP's proposal, which would "improperly

limit the disputed terms," and held that the phrase assumed its "plain meaning." Appx40.

HP did not appeal this claim construction ruling, and for good reason. The claim language recites: "delivering a low level current from said main power source to the access device." Appx331 (4:60-62). This claim language does not identify (and therefore has no limitation on) which component performs the delivering. *Id*. To perform "delivering a letter from my mailbox to yours" does not require that my mailbox does the delivering. Likewise, "delivering a low level current from said main power source to the access device" does not require that the "main power source" itself performs the "delivering." Moreover, this claim language identifies the end points of the delivery path—"from said main power source" and "to the access device"—but does not preclude intermediary components along that path. *Id*. "The claim limitation does not state *directly*" from the main power source. *Linear Tech. Corp. v. ITC*, 566 F.3d 1049, 1059 (Fed. Cir. 2009) (emphasis in original). Therefore, the claim language encompasses delivering indirectly, through a path that includes one or more intermediate components, such as a PoE chip. *Linear Tech.*, 566 F.3d at 1059 ("the Commission improperly narrowed this claim limitation to exclude indirectly monitoring current").

In addition, "a claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct." *MBO Labs., Inc. v. Becton,*

Dickinson & Co., 474 F.3d 1323, 1333 (Fed. Cir. 2007). A construction that required "directly" delivering from the main power source to the access device without intermediate circuity would have improperly excluded the '930 preferred embodiment. In Figure 1, the downstream detector 22 with resistor 26 does exactly what a PoE chip in HP's products does—limits the current level from the upstream power source 16. Appx327; Appx330 (2:52-65); Appx1793-1795 (53:4-55:14); Appx1966 (43:4-23); Appx971; Appx985-986.

Finally, applying "delivering … from" to the prior art, HP's own invalidity and claim construction expert confirmed that if there are "components between our power source and the data signaling pair" that "affect the amount of voltage or current," it is still the case that "the current is delivered from the power source." Appx4229 (54:5-17); Appx4234 (327:8-21). He specifically testified that if a current from an upstream power source passes through a component that "limits the current" (just like a PoE chip limits the current), the current is still delivered "from" the upstream power source. Appx4226-4227 (51:3-52:24); Appx4229-4230 (54:5-55:4).

Network-1 presented substantial expert testimony establishing that HP's accused products satisfied the "delivering … from" element. Accordingly, the erroneous constructions for "low level current" and "main power source" were not harmless, and Network-1 is entitled to a new trial on infringement.

C. HP's forfeiture argument fails.

HP asserts Network-1 "forfeited the issue" because "Network-1 does not argue that the jury could reasonably have found that HP's switches meet the 'delivering … from' limitation of the claims," and "Network-1's appeal brief … fails to identify any such evidence." HP-Brief 32, 28. HP is wrong.

Network-1's opening brief devoted five pages to demonstrating that Network-1 presented substantial evidence on each claim element. N1-Brief 66-70. Network-1 expressly argued that HP "was not entitled to judgment as a matter of law on any claim element," and asserted "the evidence unambiguously confirmed that HP's products met every other aspect of the claims." N1-Brief 67, 70. And the brief cited specific testimony proving the "delivering … from said main power source" element, including Appx1790-1794 and Appx1964-1966, which is Dr. Knox's testimony quoted and discussed above. N1-Brief 67. Accordingly, the issue was not forfeited. [2]

[2] Moreover, and ironically, HP forfeited the issue. Pre-verdict, HP never requested JMOL on the "delivered … from" element (HP argued only a failure of proof for "low level current" and "main power source"). Appx4208-4210. Accordingly, HP could not seek JMOL on the issue post-verdict. In addition, post-verdict, the district court ruled that HP's "delivered … from" argument "amounts to a JMOL-type inquiry," and that because "HP did not move for judgment as a matter of law of noninfringement" post-verdict, "this matter is not properly before the Court." Appx97.

II. The construction of "low level current" was erroneous and undermines the non-infringement verdict.

The district court added a lower bound to "low level current" purportedly "to give meaning to the constituent term 'low.'" Appx34; N1-Brief 39-41. HP does not dispute the key premises that establish this reasoning was wrong:

- The claim language "low level current" contains a single relative term, "low," whose construction requires finding a single reference point (an upper bound). HP admits: "the parties agree the 'reference point' for determining whether a current is 'sufficiently' low is below the level needed to sustain start-up (i.e., the upper bound of the district court's construction)." HP-Brief 37. HP thus admits: (i) to determine "whether a current is sufficiently low" requires a single reference point, and (ii) that reference point is the one identified by Network-1.

- "Low" is a gradable antonym and, as HP admits, "gradable antonyms like 'low' point in one direction." HP-Brief 39. "Low" never means higher than, or above, a standard—it means the opposite. N1-Brief 26-27; 30-31; 34-35. Importing a lower bound imports the exact opposite meaning of the actual claim language.

- The need to provide an objective boundary for a relative term (such as "low") justifies importing only the boundary required by that term (i.e. how "low" a current level must be). A relative term is not a license to import any other attributes of the preferred embodiment. N1-Brief 40. It certainly does not justify

importing an additional boundary with the exact opposite meaning of the claim language (i.e., how "high" a current level must be to be "low").

- The fundamental purpose for keeping the current level "low" is to determine whether an access device can accept remote power before sending current at a level that would start up the access device. N1-Brief 20; 28. But the lower bound in the district court's construction allowed HP to argue that a "low level current" must be high enough to begin start up "of the access device," i.e., begin to start up all components and functionality of the access device. N1-Brief 42-44.

These uncontested premises establish that the district court's reasoning was erroneous—the word "low" does not justify imposing a lower bound on "low level current." As shown below, HP's alternative justifications for the district court's lower bound also fail.

A. HP's "present invention" argument fails.

HP asserts that a "lower bound" is required by the specification, which HP reads as a "present invention" disclaimer. HP-Brief 35. HP argues:

(a) "the '930 specification refers to its sole embodiment as the 'present invention,'" HP-Brief 35;

(b) "the '930 patent's sole detection method" requires a detection current to produce a "varying voltage level" response to indicate that the access device can "accept remote power," HP-Brief 36-37;

(c) "[i]n describing the 'present invention,' the '930 specification states that the low level current causes one particular component," a dc-dc switching supply in the access device, to "'begin[] to start up but the low current level is unable to sustain the start up,'" HP-Brief 42 (quoting Appx331 (3:14-16));

(d) therefore, "low level current" means a current high enough to cause a switching power supply in the access device to begin to start up, but not sustain the start up, HP-Brief 42.

Every part of this argument is wrong.

First, "[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction." *Cont'l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 797 (Fed. Cir. 2019) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (internal quotations omitted). HP cannot point to any "words or expressions of manifest exclusion or restriction" that require the "low level current" to produce a varying voltage response or to begin to start up a dc-dc switching supply in the access device—because no such words exist.

Second, the specification does not state that the "present invention" includes every detail of the "preferred embodiment." The specification passage relied upon by HP states:

> FIG. 1 is a simplified schematic diagram of the remote power automatic detection system of the present invention, shown in conjunction with a single unit of remote access equipment connected as part of an Ethernet local area network.

Appx330 (2:21-25). This sentence does not suggest (much less unequivocally) that the present invention is limited by every detail of the preferred embodiment. In fact, it implies the opposite—that only what is shown in the "simplified schematic diagram" of Figure 1 reflects "the present invention." This diagram shows high-level features and does not include any of the details that HP relies upon. Appx327. It does not even depict a power supply within the access device (much less a switching power supply that produces a varying voltage response when it begins to start up). *Id*. The proper inference is that details not illustrated in the schematic diagram are *not* essential features of the "present invention."

Moreover, what this specification sentence identifies as "the present invention" does not even encompass the access device (much less a dc-dc switching supply within the access device). This "present invention" sentence states that (A) the "automatic detection system of the present invention" is (B) "shown in conjunction with … access equipment." In other words, this sentence says that Figure 1 schematically illustrates something that is a feature of the present invention (an automatic detection system) and shows it with access equipment (which is not identified as being "of the present invention"). Therefore, what this sentence identifies as the "present invention" does *not* encompass the

access equipment (much less a switching power supply within the access equipment that would produce a varying voltage response when presented with a low level current).

Third, the specification nowhere suggests (much less clearly declares) that a varying voltage response produced by a dc-dc switching supply beginning to start up is a required aspect of the "present invention." Those details are found solely in the "Description of the Preferred Embodiment." Appx330-331 (2:33-34; 3:12-13). They are not even mentioned in the Summary of the Invention. Appx330. "[I]t is difficult to say that the present invention 'as a whole' … necessarily includes" a detail that "does not appear in the summary of the invention section at all." *Cont'l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019). And, when the Description of the Preferred Embodiment describes a "varying voltage level" that is "created by the remote power supply [the dc-dc switching supply] beginning to start up," there is no "present invention" language (much less language that is manifestly limiting). Appx331 (3:12-16).

Fourth, HP erroneously asserts that "the '930 patent's sole detection method" uses a "varying voltage" (produced by a switching supply beginning to start up) as the condition signifying the presence of an access device that can accept remote power. HP-Brief 37. The Summary of the Invention expressly teaches that the detection method may use any "preselected condition of the voltage level." Appx330 (2:1-14). As the district court ruled (and HP did not

appeal), such a "preselected condition" can be any "parameter of the voltage on the signaling pair" that is "selected in advance" that "indicates whether an access device is able to accept remote power." Appx38. The "'preselected condition' is not limited to the disclosed embodiments in which the condition refers to sensing that a power supply begins to start up, but is unable to sustain the start up." Appx59. [3]

Accordingly, HP cannot identify any "'expressions of manifest exclusion or restriction,'" *Cont'l Circuits*, 915 F.3d at 797, demonstrating that the patentee limited the scope of "low level current" to a current that creates a varying voltage level response by beginning to start up a switching power supply in the access device.

B. HP erroneously asserts that the specification "defines 'low level current'" and contains "limiting" language.

HP asserts "the parties agree on the passage of the '930 specification that defines 'low level current,'" "[t]he parties agree" that these clauses in the specification are "limiting," and therefore "[e]ven if the plain meaning of 'low' might not require a lower bound, the '930 specification includes such a requirement." HP-Brief 36, 38. These assertions are wrong.

[3] Moreover, in the '930 claims, the "varying voltage" response is not a limitation of any independent claim. Instead, that limitation is recited in two dependent claims, which confirms (applying the principle of claim differentiation) that the independent claims do not require that the low level current produce a varying voltage response. Appx331-332 (claims 3, 7).

The construction of "low level current" is not the result of a definition or disclaimer in the specification. No specification passage contains any "limiting" statements, purports to "define" "low level current," or imposes "a requirement" of a lower bound on the current level. Instead, the construction arises because "low" is a relative term whose definition requires identifying an upper bound benchmark (a single benchmark) representing the inventor's purpose for keeping the detection current below a certain level. Multiple passages in the specification (not the single sentence that HP focuses on) reveal that purpose—to avoid sending operating level current until after detecting an access device capable of receiving remote power. Appx326 (Abstract); Appx330 (1:14-19, 1:41-43, 2:8-14).

C. HP erroneously argues that "low" does not "preclude a lower boundary."

According to HP, "even if 'low' points only in one direction, it does not *preclude* a lower boundary." HP-Brief 39 (HP's emphasis). HP's argument fails at two levels.

First, it would not suffice for HP to demonstrate that "low" does not preclude HP's lower bound. HP needs to demonstrate that the claim language actually conveys its lower bound, or that there is a clear disclaimer or definition in the patent that imposes one. As shown above, HP cannot show a disclaimer or definition. And HP's only attempt to show that the claim language "low" conveys a lower bound is the following false assertion: "Network-1 … admits that in the

context of this invention the term must have 'some non-zero reference point' (BB at 34)." HP-Brief 37-38. The sentence quoted from Network-1, however, says the exact opposite: "nothing in the term 'current,' or its modifier 'low level,' requires … some non-zero reference point." N1-Brief 33-34. HP identifies nothing in the claim language supporting its lower bound.

Second, HP admits that "gradable antonyms like 'low' point in one direction," not two directions (HP-Brief 39), and HP cannot dispute that antonyms are "'characterized by a relationship of incompatibility between two terms.'" N1-Brief 32 (quoting Nick Riemer, *Introducing Semantics* p. 137 (2010)). Accordingly, "low" never means "higher than." [4] To convey HP's lower bound would require language not found in the '930 claims.

D. HP's lower bound is incompatible with the purpose of the invention.

Network-1 showed that the district court's lower bound was incompatible with the inventor's purpose for keeping the current at a low level: to avoid starting all components of the access device until after successful detection. N1-Brief 42-44. In response, HP asserts "the district court's construction … required that the 'low level current' be sufficient to 'begin' start-up—not that it be sufficient to

[4] The two district court cases cited by HP did not find that "low" "required a lower bound" as HP asserts. HP-Brief 39. Rather, in both cases, the parties agreed to include an undisputed lower bound in the constructions. *Ansar Group, Inc. v. Medeia, Inc.*, No. 4:12-cv-0386, 2013 U.S. Dist. LEXIS 124920, at *60-*63 (S.D. Tex. Aug. 30, 2013); *Pure Techs. Ltd. v. Pressure Pipe Inspection Co.*, No. 3:05-CV-0336N, 2007 WL 5747073, at *5 (N.D. Tex. Dec. 4, 2007).

'start up all components.'" HP-Brief 41-42. HP simply ignores that the construction's lower bound was not "begin start-up," it was "begin the start up of the access device." Appx53-55. And it is undisputed that HP used this erroneous construction at trial to argue that HP did not infringe because its detection current was not high enough to start up all components in the access device so that the access device would "turn on and begin to operate." N1-Brief 43-44.

III. The construction of "main power source" was erroneous and undermines the non-infringement verdict.

HP does not dispute any of the key premises set forth in Network-1's opening brief:

- The ordinary meaning of "main power source" neither conveys nor requires "DC." It includes both AC and DC power sources. N1-Brief 45-50; 54-55; HP-Brief 47 (according to HP's expert, the "ordinary meaning" of "main power source" is not limited to DC).
- The modifier "main" connotes "first" or "principal," not DC. N1-Brief 49-50.
- The '930 specification never once mentions "DC" in connection with a "main power source." N1-Brief 46, 51.
- The district court's basis for restricting "main power source" to DC—to purportedly carve out an inoperable embodiment—was legal error. *Cordis Corp. v. Medtronic Ave, Inc.*, 511 F.3d 1157, 1174 (Fed. Cir. 2008); N1-Brief 45; 56-60.

These uncontested premises establish that the district court's claim construction was erroneous. And as shown below, HP's alternative justifications for that construction also fail.

A. HP's "present invention" argument fails.

For "main power source," HP makes a "present invention" argument that is nearly identical to the erroneous argument HP makes for "low level current." HP asserts:

(a) the details of the preferred embodiment should be imported into the claims because "the '930 specification describes this embodiment as the 'present invention,'" HP-Brief 48;

(b) the "present invention" embodiment includes an access device with a "dc-dc switching supply," HP-Brief 47-48;

(c) because "a 'dc-dc switching supply' must receive DC current," it follows that "the main power source must output DC current," HP-Brief 47-48; and

(d) therefore, the claimed "main power source" must be limited to DC.

Every premise is wrong.

First, limitations can be imported only if the specification contains "clear and unmistakable limiting statements." *Cont'l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019). The specification nowhere mentions a DC main power source, much less describes a DC main power source "as the present

invention, as essential, or as important" to the invention. *GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309-10 (Fed. Cir. 2014).

Instead, the specification states just the opposite: "In accordance with the present invention, a power source 16 … may be the same as the conventional main power supply…." Appx330 (2:52-54). This is not a clear disclaimer limiting the main power source to DC. It is an express statement that "the present invention" is not limited to a DC power source and instead encompasses a "conventional main power supply," which undisputedly may "be either an AC or DC source of power." Appx1131 (¶129 & n.7); Appx964-965 (¶49); N1-Brief 51-52.

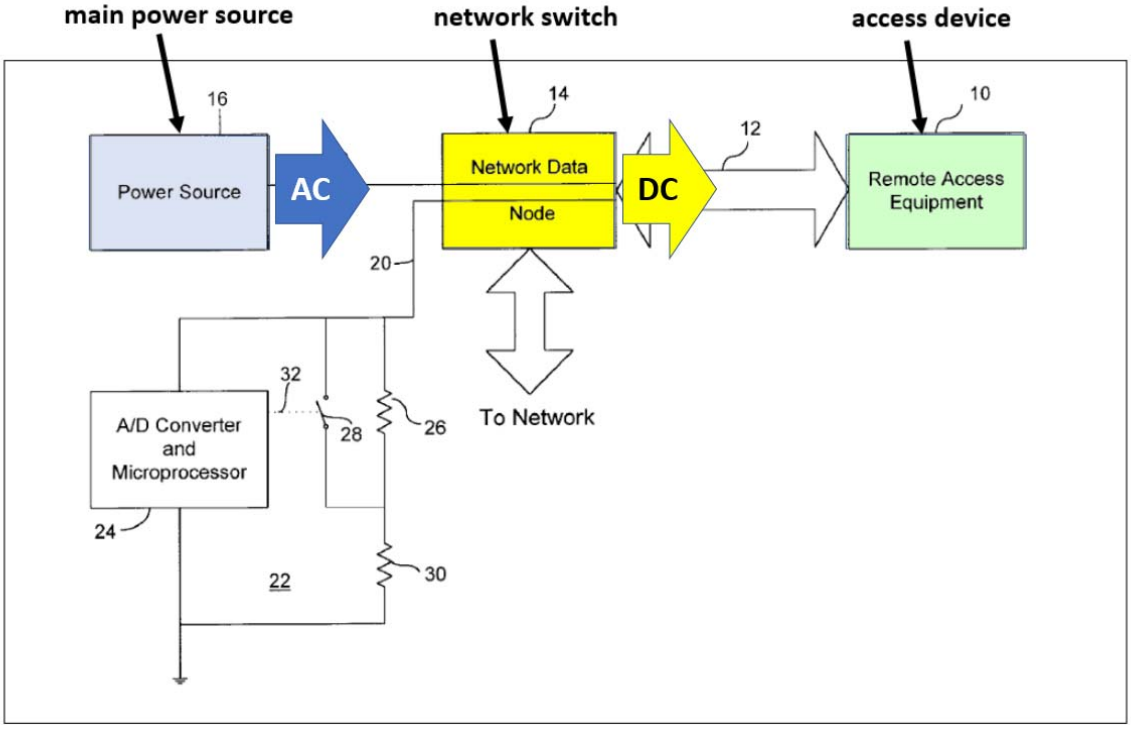
Moreover, the specification does not state that the "present invention" "requires" or "necessitates" or "is limited to" the details in the described embodiment. Instead, the specification states that the described embodiment is "*[i]n accordance with* the present invention." Appx330 (2:52) (emphasis added). This means the embodiment is consistent with the present invention; it does not mean the present invention is limited to that single embodiment.

<u>*Second*</u>, the "present invention" passage cited by HP does not state that the "present invention" includes every detail of the "preferred embodiment"—including a dc-dc switching supply within the access device. Instead, as explained above, that sentence states that (A) the "automatic detection system of the present invention," is (B) "shown in conjunction with … access equipment." Appx330 (2:21-25). The "present invention" in this sentence does not even encompass

access equipment, much less a "dc-dc switching supply" within the access equipment.

Third, the specification nowhere suggests that DC is part of the "present invention." In fact, the "Summary of the Invention" contains no mention of DC. When a concept "does not appear in the summary of the invention section at all," it is difficult to conclude that it is an essential part of the invention. *Cont'l Circuits LLC v. Intel Corp.*, 915 F.3d 788, 798 (Fed. Cir. 2019).

Fourth, contrary to HP's assertion, whether current flow in a switching supply in the access device (depicted below in green) is AC or DC says nothing about the direction of current flow from the upstream "main power source" (depicted in blue):



Appx327.

As detailed in Network-1's Brief (N1-Brief 53-54; 64; 10-11) and not disputed by HP, it is common for a network switch (highlighted above in yellow) positioned between the main power source and the access device to include components that convert AC to DC as needed. Appx1745 (5:7-12). Figure 1 "is a simplified schematic diagram," Appx330 (2:21), which means it is not a complete circuit diagram and does not depict all components present in the circuit. Both sides' experts agreed that one or more converters in the switch could convert AC received from an AC main power source (the blue AC arrow) to DC (the yellow DC arrow). Appx1131 (¶129 & n.7); Appx1132-1140 (¶¶131-137) ("an AC/DC converter . . . can convert power before delivering the low level current to an access device that requires a DC low level detection current"); Appx3765 (659:3-14); Appx3767 (661:4-16). Therefore, an access device with a dc-dc power supply requiring DC power is compatible with an AC "main power source." Appx1140; N1-Brief 64. [5]

[5] HP also quotes Dr. Neikirk's testimony that the '930 patent does not "contemplate 'a network device to operate using AC power *directly* from, e.g., an AC wall socket.'" HP-Brief 46 (quoting Appx1049 (emphasis added)). But the '930 claims do not require that the "main power source" *directly* connect to each internal component within the data node—rather the claims require a "main power source connected to supply power to the data node" (Appx331 (4:55-56)), which means components within the data node may convert AC to DC as necessary. Appx1131 (¶129 & n.7); Appx1139-1140 (¶137); Appx1745 (5:7-12). Dr. Neikirk himself admitted that "the network device" can operate from "AC power" if the

B. HP's "*Cisco* court" and "Dr. Neikirk's other opinions" arguments fail.

HP does not dispute that the district court committed legal error by holding that "main power source" should be limited to DC because AC would encompass an inoperable embodiment. Instead, HP asserts two alternative bases: "the court also relied on the reasoning set forth in the *Cisco* court's claim construction order and Dr. Neikirk's other opinions." HP-Brief 48. Both alternatives fail.

First, the lower court did not rely on Dr. Neikirk's "other opinions." *Id*. The magistrate judge and district court credited only Dr. Neikirk's opinions that AC "would render the claimed invention inoperable." Appx30; Appx50. In particular, the district court credited testimony "that if the 'main power source provided AC current, it would be unable to detect the second state, a fixed voltage drop," which is one aspect of the preferred embodiment. Appx50. But Network-1's opening brief showed that limiting "main power source" to DC based on that conclusion was (a) legal error (N1-Brief 56-60), and (b) contrary to the undisputed evidence establishing that embodiments are operable with an AC main power source (N1-Brief 60-66). HP does not dispute either showing.

Second, the district court's conclusion was not justified by citing to the *Cisco* Markman order and *Cisco* Reconsideration order. Appx50. The district court did not identify any expert or extrinsic source credited by the *Cisco* court or

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device includes an internal "AC-to-DC converter." Appx3765 (659:3-14); Appx3767 (661:4-16).

reproduce any reasoning from the *Cisco* orders. *Id*. The district court could not do so because the *Cisco* orders do not cite any extrinsic evidence and do not provide any convincing reasoning. The *Cisco* Markman order merely asserted that "Figure 3 below shows that the main power source is a source of DC power," and then reproduced Figure 3. Appx346-347.

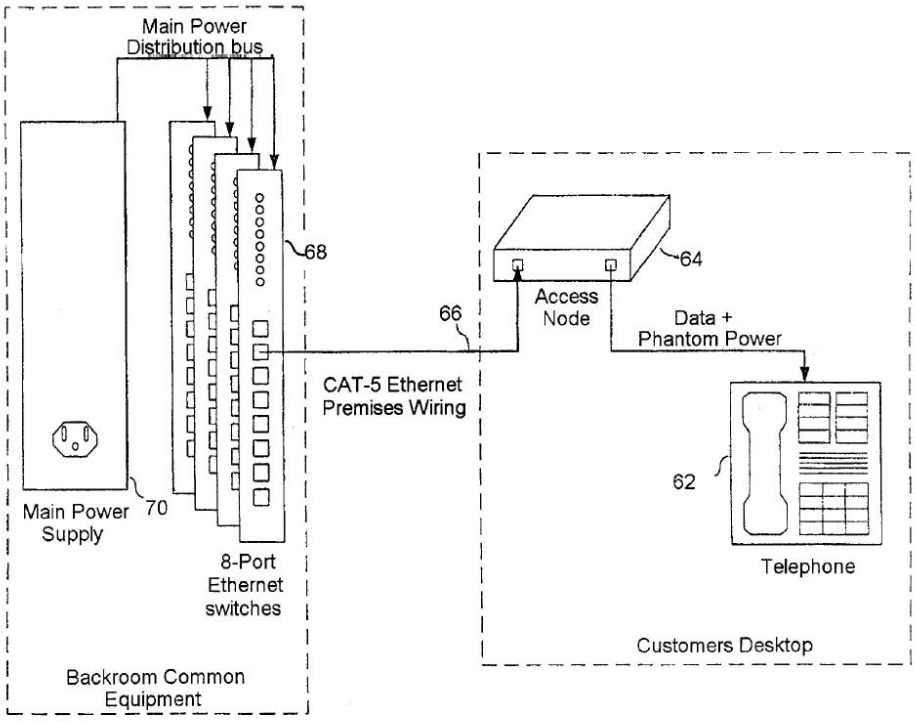


Figure 3 of the '930 Patent

But, as Network-1 showed in its opening brief, "Figure 3 … specifies nothing about 'Main Power Supply 70' supplying DC." N1-Brief 17. That showing was not disputed by HP.

The *Cisco* Reconsideration order simply repeated the same mistake, asserting: "Figure 3 defines [the main power supply of Figure 1] as main power

supply 70, imposing a mandatory requirement of a DC power supply," followed by a citation to the *Cisco* Markman order. Appx9003.

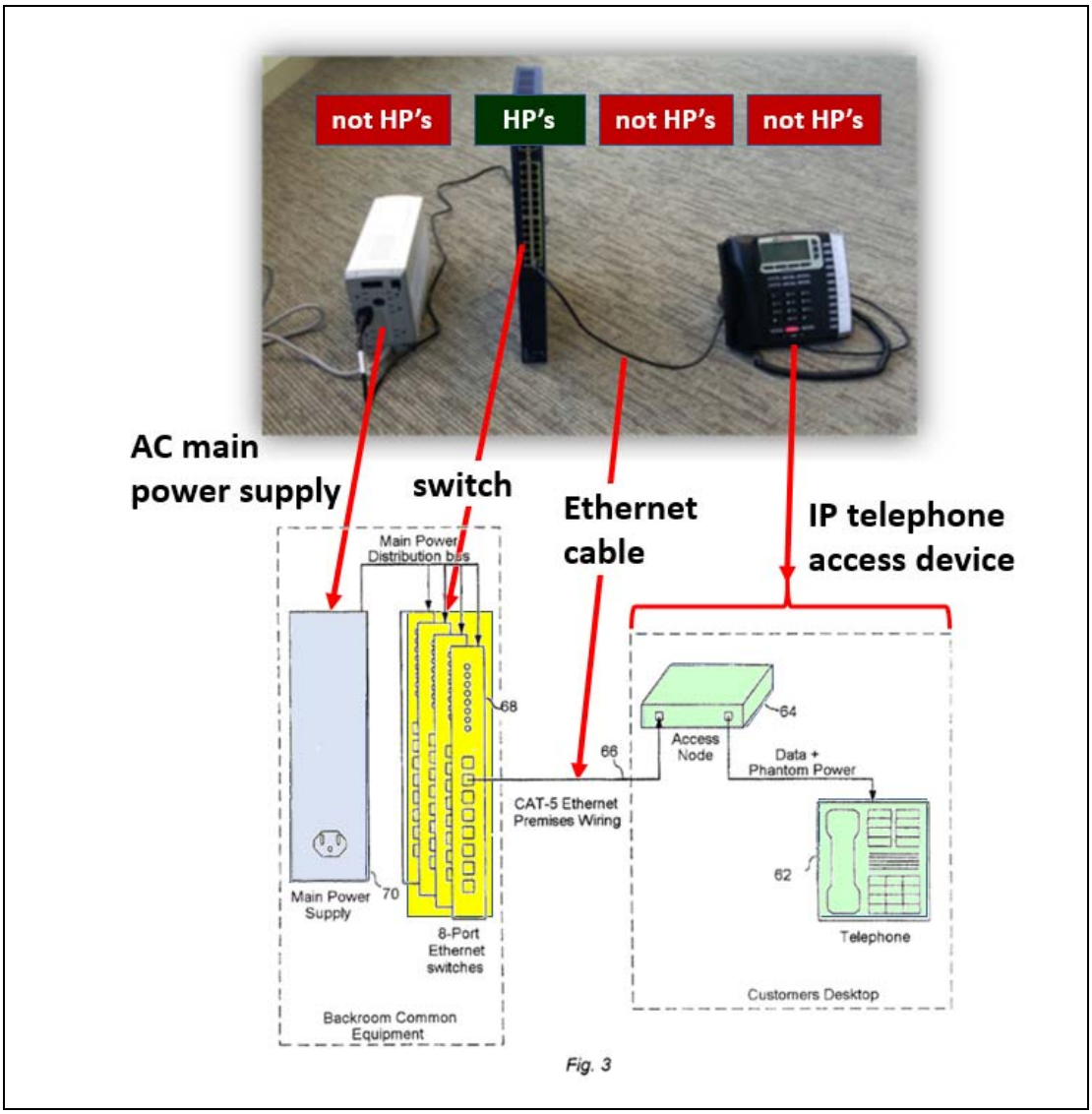
Accordingly, nothing in the *Cisco* orders justified the district court's conclusion that AC is "inconsistent with the specification." Appx51.

C. HP erroneously asserts that the flawed construction of "main power source" was irrelevant.

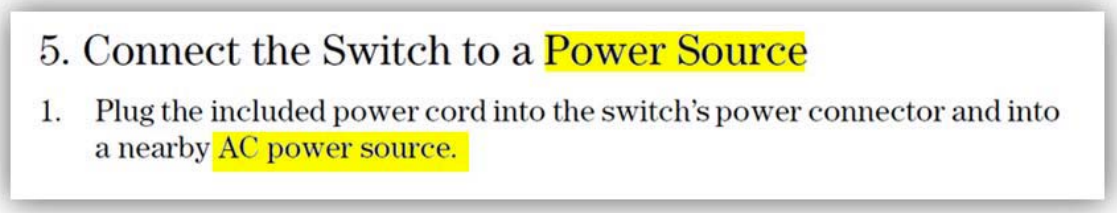
HP contends that the "DC main power source" construction is "entirely irrelevant" because "Network-1 has not identified any *specific AC component* in the PoE+ switches" and that the AC power sources that Network-1 did identify are "*separate from*" the switches "and not supplied by HP." HP-Brief 49-50 (HP's emphasis).

But the '930 claims do not require that the "main power source" be internal to the switch. In fact, the '930 preferred embodiments depicted in Figures 1 and 3 have a main power source (16, 70) that is separate from the switch (14, 68). Appx327; Appx329. And the external AC main power sources identified by Network-1 fully satisfy the claim requirements. Appx3343-3350. In fact, HP's witnesses conceded that, at least for certain products, power for the two functions of the main power source "originate at the AC input" with "a single AC cable" that provides "AC power." N1-Brief 68-69; Appx2291 (108:5-7); Appx2056-2057 (28:22-29:8); Appx2065-2066 (37:3-38:10); Appx2067 (39:7-14).

HP is also wrong when it asserts that "Network-1 has not set forth an infringement theory that would hold HP liable for elements separate from the accused PoE+ switches." HP-Brief 50. Network-1's principal theories at trial were that HP was liable for indirect infringement (contributory infringement and inducement) for the acts of HP's customers who combined (a) an HP switch with (b) a non-HP power source, Ethernet cable, and access device, as illustrated in the following diagram. Appx1820-1826 (80:20-86:18); Appx2568-2571 (59:4-62:15).



And if "main power source" had not been limited to DC, Network-1 would have presented additional inducement evidence related to an AC power source, such as:



5. Connect the Switch to a Power Source

1. Plug the included power cord into the switch's power connector and into a nearby AC power source.

Appx878; Appx960-962 (¶43).

Accordingly, the erroneous construction of "main power source" was certainly relevant and prejudicial.

Argument on Cross-appeal

IV. The judgment of no invalidity can readily be affirmed on the alternative basis that HP's asserted obviousness combination was missing two key claim elements.

The district court's order granting JMOL of no invalidity should be affirmed because HP's asserted obviousness combination was missing two key claim elements and therefore failed as a matter of law.

HP had the "burden to prove that all claimed limitations are disclosed in the prior art." *PAR Pharm., Inc. v. TWi Pharm., Inc.*, 773 F.3d 1186, 1194 (Fed. Cir. 2014). When "none of the prior art references cited by [defendant], alone or in

combination, discloses" an element of the asserted claims, the accused infringer has "failed to sustain their burden of proving that the asserted claims are invalid." *Vizio, Inc. v. ITC*, 605 F.3d 1330, 1342-43 (Fed. Cir. 2010).

Accordingly, an invalidity verdict cannot stand when the asserted prior art does not disclose an element of the claims. *August Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1290 (Fed. Cir. 2011) ("as a matter of law [an asserted combination] would not render the asserted claims obvious" when the combination "does not disclose the claimed strobing and therefore does not supply the missing element for purposes of the obviousness analysis"); *Honeywell Int'l, Inc. v. U.S.*, 609 F.3d 1292, 1300-01 (Fed. Cir. 2010).

HP failed to introduce substantial evidence that the references in its asserted combination disclosed two claim elements: "secondary power source" and "low level current." Accordingly, the district court's order granting JMOL on invalidity should be affirmed.

A. HP's asserted combination was missing a "secondary power source."

The construction of "secondary power source" (not challenged on appeal) is "a source of power connected to provide power between the data node and the access device using the data signaling pair; the driving points of the secondary power source must be physically separate from the driving points of the main

power source (a driving point is a point of a power source from which a particular power level can be provided for driving a load)." Appx9512.

A "secondary power source" that provides power "using the data signaling pair" and has physically separate "driving points" is not an everyday concept that a lay jury could readily identify by simply reading a prior art patent. To prove that this element was disclosed in a "technical patent document," HP was required to provide "explanatory expert testimony." *Koito Mfg. Co., Ltd. v. Turn-Key-Tech, LLC*, 381 F.3d 1142, 1152 n.4 (Fed. Cir. 2004). Explanatory expert testimony is required "even when the reference has been submitted into evidence before the jury." *Id.* at 1152; *Fresenius USA, Inc. v. Baxter Intern., Inc.*, 582 F.3d 1288, 1300 (Fed. Cir. 2009).

Moreover, "[g]eneral and conclusory testimony [from an expert] does not suffice as substantial evidence of invalidity." *Koito*, 381 F.3d at 1152. Instead, the expert must "explain in detail how [the] claim element is disclosed in the prior art reference." *Id*. (internal quotations omitted). For construed terms, the expert must explain how the prior art discloses all aspects of the court's construction. *Fresenius*, 582 F.3d at 1300 ("the district court correctly granted JMOL" when defendant's expert failed to explain how the prior art taught the "stepper motor structure" required by the court's construction). "[T]o prove that the claim limitation was present in the prior art," "it was [HP's] burden to clearly disclose, discuss, and identify" it with expert testimony. *Id*.

HP failed to submit *any* testimony demonstrating that a "secondary power source" was disclosed in the asserted prior art. The only mention of this term by HP's expert, Dr. Neikirk, was in his preliminary statement identifying it as one of the "key pieces" that the claim requires. Appx2341 (19:10-15). That's it.

Dr. Neikirk did not assert that a "secondary power source" was disclosed in any prior art reference or explain how the prior art satisfied the court's construction. He did not identify the "driving points" of a purported secondary or main power source, and he made no effort to demonstrate that the respective driving points in his asserted combination were "physically separate," as the court's construction required. [6] He did not mention the concept of "driving points" at all.

Because "the evidentiary burden of proof cannot be carried without clearly identifying the corresponding structure in the prior art," HP's evidence failed as a matter of law. *Fresenius*, 582 F.3d at 1300.

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[6] Moreover, Dr. Neikirk could not have identified the driving points of a purported "main power source," because it was his opinion that his asserted combination did not disclose a power source that met the requirements of the claim for a "main power source," i.e. a source of power for both a data node and a detection current. Appx9395 (¶205, n.190); Appx9396 (¶400) (opining that in the asserted combination "no power source performs both of the functions required by the claim" and the combination "does not disclose this element"); Appx9370-9371. In Dr. Neikirk's trial testimony, for the "main power source" he identified two separate power sources, one from Fisher that supplied power to a data node, and one from Woodmas that delivered a detection current. Appx9251-9253; Appx2345 (23:18-21); Appx2348-2349 (26:21-27:5); Appx2361 (39:11-13); Appx2357 (35:19-20); Appx2370-2371 (48:25-49:2); Appx2369 (47:5-6).

On appeal, HP presents only the conclusory assertion that "Chang '885 teaches a 'secondary power source' (electrical power supply 640)" that is arranged to supply power via the "data signaling pair." HP-Brief 66. But HP cannot cite any trial testimony to support this assertion. HP's expert never even mentioned "power supply 640" from Chang, much less explained how it corresponds to a "secondary power source." There was no testimony identifying its "driving points," or demonstrating that those driving points were physically separate, or showing that "power supply 640" provided power "using the data signaling pair" as required by the court's construction. Without explanatory expert testimony, the jury could not possibly have reached those conclusions on its own.

Moreover, the jury could never have concluded that Chang's "power supply 640" is the claimed "secondary power source," because Chang taught away from the key inventive aspect of the claimed "secondary power source," which requires that it provide power "via said data signaling pair." Appx331 (4:53-62). At the time of the invention, the "accepted wisdom" was "that different wires should be used for (a) detection, (b) network data traffic, and (c) power." Appx3003-3006; Appx3010; Appx1717-1719 (106:7-108:25). But the claimed invention requires that all three functions be performed on the *same* wire pairs. *Id*. In particular, the claims require a "secondary power source arranged to supply power … *via said data signaling pair*," i.e., via the same pair of wires that are "arranged to transmit data" and also used for "delivering a low level current" for detection. Appx331

(4:53-62); Appx1717-1719 (106:7-108:25). But, as HP's expert acknowledged in his expert report, Chang's "power supply 640 provides power to the … remote terminal on wires 4 and 5 … which are not used to transmit Ethernet data signals." Appx3018 (quoting Neikirk ¶189). He further opined: "Indeed, Chang specifically teaches using a pair of wires different from those used for Ethernet data transmission to perform remote detection and powering." Appx3013 (quoting Neikirk ¶172). As Network-1's expert put it, "Chang specifically identifies the problem" with "systems that deliver both power and data over a single wire or wire pair" "and then … teaches away from sending data and power over the same wires." Appx3017; Appx3014-3018; Appx1864-1865 (124:8-125:17).

Because HP failed to submit any evidence that its asserted obviousness combination disclosed a "secondary power source," HP failed to meet its burden on obviousness and judgment of nonobviousness was required as a matter of law.

B. HP's waiver argument fails.

In its post-trial motion for JMOL, Network-1 expressly presented the argument that HP failed to provide evidence of a "secondary power source." Appx9248-9251. HP does not contend that Network-1's argument was inadequately presented in that motion. HP contends only that Network-1 waived this ground by "fail[ing] to raise any such challenge in its pre-verdict motion under Rule 50(a)." HP-Brief 62. This argument fails for two independent reasons.

1. Network-1 did not waive its Rule 50 challenge.

"The Fifth Circuit construes Rule 50(a) liberally, such that the adequacy of an oral Rule 50(a) motion depends in large measure on the context in which the motion is made." *Orion IP, LLC v. Hyundai Motor Am.*, 605 F.3d 967, 973 (Fed. Cir. 2010); *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1379-80 (Fed. Cir. 2009).

When an opposing party has previously been placed on notice of the moving party's position as to missing evidence in the opposing party's case, a cursory JMOL motion is sufficient to give notice that the moving party is challenging the previously identified missing evidence. "Even a cursory motion" suffices when "it is clear from the context that neither the court nor [the nonmovant's attorneys] needed any more enlightenment about [the movant's] position on those issues." *Orion*, 605 F.3d at 973.

For example, in *Orion*, the plaintiff said only "we seek partial judgment as a matter of law based on prior art." *Id*. This was sufficient because it was "clear from the context" of that case—e.g., the parties' previous positions, the evidence, and the jury instructions on obviousness—"that neither the court nor Orion needed any further explanation about Hyundai's position on those issues." *Id*.

Network-1's Rule 50(a) motion asserted that "HP's entire validity case should be rejected as a matter of law," that "applying the Court's claim construction correctly … the combination doesn't render the patent obvious," and

that "there's not sufficient evidence for which any reasonable jury could conclude that the patent is obvious." Appx2502-2503 (180:21-181:3). This motion was sufficient because HP and the district court were fully aware, based on the context, of Network-1's position that HP could not provide the requisite evidence for "secondary power source."

Network-1 repeatedly asserted that HP's combination was missing the "secondary power source" element. Network-1's expert identified, in his report, that HP's expert had failed to prove the disclosure of a "secondary power source," including that Dr. Neikirk "fails to address" "the concept of separate driving points." Appx3016-3018; Appx3118-3120. In doing so, Network-1 expressly gave notice to HP and the district court that HP's trial evidence was missing this element (because HP's expert testimony was HP's trial evidence for obviousness).

In addition, HP and the court knew that establishing a "secondary power source," with physically separate "driving points," was an essential requirement because it was addressed in five rounds of briefing and five orders. Appx24-48; Appx49-53; Appx9505-9513; Appx9514-9519; Appx9524-9531. Furthermore, HP's expert, in his supplemental report, expressly acknowledged that HP would have to establish these detailed requirements for "secondary power source." Appx9400-9403. And Network-1's expert, in his supplemental report, confirmed that HP had failed to do so. Appx9437.

Moreover, as in *Orion*, the "jury instructions contained specific, detailed instructions as to … obviousness." *Orion*, 605 F.3d at 973. In particular, HP and the court knew that the jurors had been given, and instructed to apply, a detailed construction for "secondary power source." Appx9392; Appx2560 (51:1-8).

In addition, Network-1 cross-examined HP's expert to establish HP's failure to prove the "secondary power source" element (Appx2361 (39:8-10, 39:18-22)), which HP's expert had asserted was a "key piece[]" of the claim. Appx2341 (19:6-15).

Accordingly, because "it is clear from the context" that "neither [HP] nor the district judge could have failed to understand [Network-1's] position" on secondary power source, Network-1's Rule 50(a) motion was sufficient. *Orion*, 605 F.3d at 973-74.

2. Waiver would not preclude Network-1's argument.

Under controlling Fifth Circuit law, if a party waives a "sufficiency of the evidence" issue in a Rule 50(a) motion, that does not preclude the issue from being considered on appeal. *Flowers v. S. Reg'l Physician Servs.*, 247 F.3d 229, 238 (5th Cir. 2001). Instead, it changes the inquiry from "substantial evidence" to "plain error." *Id*.

"On plain error review, the question for this court is not whether there was substantial evidence to support the jury verdict, but whether there was any evidence to support the jury verdict." *Id*. (internal quotations omitted); *Industrias*

Magromer Cueros Y Pieles S.A. v. La. Bayou Furs, 293 F.3d 912, 920-21 (5th Cir. 2002). Because allowing a verdict to stand in the absence of any supporting evidence for an element would be a "manifest miscarriage of justice," Fifth Circuit law requires that the appellate court "vacate the judgement" and "remand for a new trial" regardless of waiver. *Adames v. Perez*, 331 F.3d 508, 510-15 (5th Cir. 2003).

As demonstrated above, HP did not merely fail to present substantial evidence; it failed to present *any* evidence on the "secondary power source" element. Accordingly, allowing the verdict to stand would be plain error.

C. HP's asserted combination was missing a "low level current."

None of the admissible prior art in HP's asserted references disclosed a "low level current."

Chang did not disclose a "low level current." HP's invalidity expert, Dr. Neikirk, "concluded that … Chang … did not disclose a low level current." Appx2362 (40:11-16). Network-1's expert, Dr. Knox, agreed. Appx1718-1719 (107:9-108:25).

The Fisher System was inadmissible, and the Fisher patents did not disclose a "low level current." In closing argument, HP argued to the jury that the Fisher System discloses a "low level current." Appx2639-2640 (130:18-131:12). But it is now undisputed that the Fisher System was not prior art, and testimony from Dr. Fisher should never have been admitted to the jury. HP-Brief 62, n.2. Moreover, HP's own expert, Dr. Neikirk, analyzed the Fisher System and Fisher patents and

concluded that they did not disclose a "low level current." Appx2337 (15:6-14, 15:20-21); Appx2360-2361 (38:25-39:13). Dr. Knox reached the same conclusion. Appx2451 (129:11-21).

Woodmas did not disclose a "low level current." HP argues in its brief that the "low-power output" from Woodmas is the claimed "low level current." HP-Brief 67. But this is refuted by both parties' experts. Dr. Neikirk never testified that the Woodmas current was "not sufficient to sustain the start up" of the access device. Instead, when asked, "does Woodmas disclose or teach a low level current," he testified, "I don't think it's present." Appx2365 (43:13-22). And he admitted, "I could not find that element [low level current] in the art I used," and "I have one missing element and, hence, I cannot conclude that [the '930 patent] is obvious in my analysis because of that one missing element." Appx2372 (50:8-22); Appx2376-2379 (54:7-57:4). Dr. Knox agreed. Appx2452 (130:20-22) ("The low level current is not taught by Woodmas."); Appx2452-2453 (130:23-131:22).

Accordingly, the trial record cannot support a verdict of invalidity. There was not clear and convincing evidence that the asserted art disclosed a "low level current," and the '930 claims are therefore not obvious as a matter of law.

Moreover, Network-1 has not waived this argument. In its post-trial motion for JMOL, Network-1 expressly argued that HP failed to introduce sufficient evidence of "low level current." Appx 9244-9248. And, as HP admits, in Network-1's "Rule 50(a) motion, Network-1 raised [the] specific argument[]" that

"HP's 'entire validity case' should be rejected because its expert allegedly admitted nonobviousness." HP-Brief 63; Appx2502-2503 (180:21-181:3). The expert's admission of nonobviousness at trial was based on the missing low level current element. Appx2372 (50:8-22); Appx2376 (54:7-13).

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Because HP failed to introduce substantial evidence that its references disclosed two important elements, HP failed as a matter of law to prove the claims obvious. The district court's judgment of no invalidity should be affirmed.

V. HP was estopped from asserting obviousness based on prior art patents.

A. Because HP reasonably could have raised its obviousness ground in HP's IPR petition, HP was estopped.

If an *inter partes* review of a claim "results in a final written decision," the petitioner "may not assert ... in a civil action … that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review." 35 U.S.C. § 315 (e)(2).

HP filed a petition for *inter partes* review. Appx9006-9050. The PTAB issued an order instituting trial on HP's Petition. Appx9499-9504. After trial, the PTAB issued a final written decision rejecting HP's IPR challenges. Appx367; Appx398. Accordingly, HP was estopped from asserting any invalidity grounds it "raised or reasonably could have raised" during that IPR. 35 U.S.C. § 315(e)(2).

Notably, section 315(e) does not contain the additional requirement that the ground be one "the petitioner … reasonably could have raised *and that reasonably would have succeeded* during that inter partes review." Therefore, if a petitioner makes the tactical choice to limit the grounds raised in its petition to only those likely to succeed before the PTAB, this does not avoid estoppel on any ground that was withheld from the petition.

A petitioner "reasonably could have raised" a ground if (i) it was within the scope of permitted grounds, 35 U.S.C. § 311(b), and (ii) it was known to, or reasonably could have been discovered by, the petitioner. *See, e.g., Oil-Dri Corp. of Am. v. Nestlé Purina Petcare Co.*, No. 15-cv-1067, 2017 U.S. Dist. LEXIS 121102, at *28 (N.D. Ill. Aug. 2, 2017) ("an IPR petitioner reasonably could have raised … prior art that a skilled searcher conducting a diligent search reasonably could have been expected to discover[]" (internal quotations omitted)); *Great West Casualty Co. v. Intellectual Ventures II LLC*, IPR2016-01534, Paper No. 13 at 14-16 (PTAB Feb. 15, 2017) (because a prior art reference "'was readily identifiable in a diligent search'…a ground based on [that reference] is one that Petitioner 'reasonably could have raised'" (quoting 157 Cong. Rec. S1375 (daily ed. Mar. 8, 2011) (statement of Sen. Kyl)); Appx89-90 (citing additional cases).

The Fisher Patents Ground is a "ground … under section … 103 … on the basis of prior art consisting of patents," and therefore was within the scope of grounds permitted in an *inter partes* review. 35 U.S.C. § 311(b). And the district

court found that the ground of invalidity based on the combination of the Fisher, Woodmas, and Chang patents was known to HP before HP filed its Petition. Appx91; *see* Appx9470; Appx9472; Appx9473; Appx9478; Appx9480; Appx9481. HP does not challenge that finding on appeal. Accordingly, HP "reasonably could have raised" this ground in its Petition and was thus estopped from relying on a combination of these patents.

B. HP's arguments fail.

1. HP's "joinder" argument fails.

HP argues that because HP's IPR Petition included a request that its Petition be joined with Avaya's previously instituted petition, HP's Petition could not have reasonably raised grounds that were not already part of the instituted IPR. HP-Brief 55-61. This argument fails.

No statute or rule limits a petition with a request for joinder to only the identical grounds already asserted in an existing proceeding. To the contrary, "35 U.S.C. § 315(c) provides discretion … to allow joinder of new issues into an existing proceeding." *Proppant Express Invs., LLC v. Oren Techs., LLC*, IPR2018-00914, Paper 38 at *4 (PTAB Mar. 13, 2019). HP does not contend that it could not have "raised" the Fisher Patents Ground in HP's Petition. HP contends only that adding new grounds is "rarely permitted" by the PTAB, and that the PTAB had already shown it would reject any new grounds. HP-Brief 56.

As the district court correctly reasoned, however, "whether to join an IPR and assert identical or different prior art—with the associated estoppel ramifications—was a decision for HP to make." Appx91. If a petitioner concludes the Board will almost certainly not institute a petition that raises a certain ground (because, for example, the ground is too weak), that does not mean a petitioner cannot reasonably *raise* it. Similarly, that HP concluded it would improve its chances of institution by only including grounds previously asserted by Avaya, does not mean HP could not have reasonably raised another ground. Section 315(e) requires only that the petitioner "reasonably could have raised" the ground; not that the ground "reasonably would have succeeded."

Moreover, at the time HP filed its Petition, it was commonplace for the PTAB to institute on certain grounds but not others. *See, e.g.*, *Shaw Indus. Grp. v. Automated Creel Sys.*, 817 F.3d 1293, 1298 (Fed. Cir. 2016) ("The PTO … allows the Board … to institute IPR of a given claim based on only some of the proposed grounds."). Accordingly, HP's Petition could have included the identical grounds from the Avaya Petition (thereby maintaining a likelihood of institution for those grounds) and also included the Fisher Patents Ground. This would have provided the Board the opportunity to also institute on the Fisher Patents Ground. Or if the Board denied institution on the additional ground, or on HP's entire Petition, HP could have asserted the Fisher Patents Ground in later litigation. *Shaw*, 817 F.3d at

1300 (holding that grounds included in an IPR petition but not instituted are not subject to estoppel).

HP made the tactical choice to pursue invalidity via IPR. This gave HP an early opportunity, in a favorable forum, to knock out claims of the '930 patent. [7] The price for that opportunity, should the challenge fail, is estoppel in the district court on grounds that were known but not raised. When HP's challenge failed, it was eminently fair that HP pay the price of estoppel.

Finally, HP asserts that IPR estoppel, just like "[c]ommon law collateral estoppel … only bars parties as to matters that they have had a full and fair opportunity to litigate," and any different result would violate the Due Process Clause. HP-Brief 53-54, 59 (internal quotations omitted). However, HP failed to raise any Due Process argument in the district court, and thus waived the argument. *Martco Ltd. P'ship v. Wellons, Inc*., 588 F.3d 864, 877 (5th Cir. 2009). Moreover, IPR estoppel is not analogous to collateral estoppel (issue preclusion), "which only bars matters actually litigated in a prior proceeding." *Carson v. DOE*, 398 F.3d 1369, 1375 n.8 (Fed. Cir. 2005). Instead, IPR estoppel is analogous to claim preclusion, which "forecloses matters that, although never litigated or even raised,

[7] Avaya's already pending IPR did not guarantee HP the opportunity for an early knock out, because Avaya could have settled with Network-1 and agreed to terminate its IPR before the PTAB issued a final decision. Accordingly, by filing HP's own Petition, HP obtained the opportunity for an early knock.

could have been advanced in an earlier suit." *Id*. Claim preclusion certainly does not violate Due Process.

2. HP's attempt to limit estoppel for certain claims is both wrong and waived.

HP argues that "no estoppel can apply to claims 13, 14, 17, 20 and 22" because these claims were not challenged in the IPR. HP-Brief 61-62. HP has waived this argument.

If a defendant does not present its argument "to the district court for its consideration in the first instance," the party "has waived that argument." *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 582 F.3d 1288, 1296 (Fed. Cir. 2009); *Martco Ltd. P'ship v. Wellons, Inc*., 588 F.3d 864, 877 (5th Cir. 2009) ("arguments not raised before the district court are waived and cannot be raised for the first time on appeal").

HP did not present this argument to the district court and, instead, raises it for the first time on appeal. Appx9314-9353; Appx9441-9466. Indeed, HP's district court briefing did not include a single reference to claims not being challenged in the IPR, much less argue that estoppel does not apply on this basis. *Id*. Accordingly, this argument was waived.

Moreover, "dependent claims are nonobvious if the independent claims from which they depend are nonobvious." *In re Lemay*, 660 F. App'x 919, 927 (Fed. Cir. 2016) (non-precedential) (internal quotations omitted). Claims 14 and 17

depend from independent claim 6, and HP's obviousness challenge as to claim 6 fails as a matter of law (because of estoppel). Therefore, claims 14 and 17 "cannot be obvious because they all depend from a nonobvious claim." *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1365 (Fed. Cir. 2008).

VI. In the alternative, Network-1 should be granted a new trial on obviousness.

HP argues that if the judgment of no invalidity is reversed, then the "verdict of obviousness should be reinstated." HP-Brief 73-74. But there is no scenario where the verdict of obviousness may stand. At minimum, Network-1 would be entitled to a new trial on obviousness.

A. Network-1 is entitled to a new trial on obviousness or a remand for the district court to consider its new trial motion.

"If the [district] court grants a renewed motion for judgment as a matter of law, it must also conditionally rule on any motion for a new trial." Fed. R. Civ. P. 50(c). The district court granted Network's motion for judgment as a matter of law on invalidity but failed to conditionally rule on Network-1's motion for a new trial. Appx91 (p. 18 & n.6). That was error. *Jennings v. Jones*, 499 F.3d 2, 21 (1st Cir. 2007) ("the district court held that the [new trial] motions were moot," which was "error," and "[w]e now remand to the district court for a ruling on the undecided motions"); *Gordon Mailloux Enters., Inc. v. Firemen's Ins. Co.*, 366 F.2d 740, 741-42 (9th Cir. 1966) (remanding new trial motion where "the court made no conditional ruling on the motion for new trial").

Moreover, Network-1 had no opportunity to challenge this error before the district court entered final judgment. The district court issued its order addressing the post-trial motions (Appx91) at the same time that the court entered a Final Judgment (Appx140). [8] When a district court errs by failing to rule on a motion for new trial, appellate courts "have discretion to either remand to the district court to let it decide the new trial motion or to decide the new trial motion ourselves." *Acosta v. San Francisco*, 83 F.3d 1143, 1149 (9th Cir. 1996).

Network-1 conditionally moved for a new trial on invalidity on four grounds. Appx9260-9265. Two of these grounds merit remand for consideration by the district court in the first instance: (1) improper argument concerning the Cummings reference (Appx9262-9264) and (2) improper argument concerning testimony from HP's expert on Patent Office procedure (Appx9264-9265). These two grounds require weighing evidence and assessing prejudicial impact on the jury—issues better suited for the judge who presided over trial.

The third ground, that the verdict is against the great weight of the evidence (Appx9260-9261), would ordinarily also require the trial judge's assessment of the evidence. But where there is no evidence on a necessary element of a claim or defense, a party is entitled to a new trial as a matter of law, and the appellate court

[8] In fact, because the district court's ruling on the post-trial motions had initially been filed under seal and was inaccessible to Network-1's counsel (Appx74), Network-1 did not receive notice until sometime after entry of judgment that the district court had failed to rule on Network-1's motion for new trial on invalidity.

must "vacate the judgment" and "remand for a new trial." *Adames v. Perez*, 331 F.3d 508, 510-15 (5th Cir. 2003). As demonstrated above, HP failed to present any evidence that its asserted obviousness combination disclosed a "secondary power source." *See*, *supra*, pp. 34-38. Accordingly, on this third ground Network-1 is entitled as a matter of law to a new trial on invalidity.

Network-1's fourth ground for a new trial—improper admission of evidence concerning the Fisher System (Appx9261-9262)—also presents an ideal scenario where an appellate court should exercise its discretion to order a new trial. As demonstrated below, it is undisputed that the Fisher System was inadmissible and the prejudice is manifest. Accordingly, remand would simply delay the inevitable new trial order.

B. HP's inadmissible and prejudicial obviousness evidence entitles Network-1 to a new trial on validity.

A court should "grant a new trial when the jury has inadvertently considered inadmissible evidence, and the evidence was prejudicial to the losing party." *Carson v. Polley*, 689 F.2d 562, 570 (5th Cir. 1982). As demonstrated below, evidence of the Fisher System as purported prior art was inadmissible and certainly prejudicial.

1. Evidence concerning the purported Fisher System was inadmissible.

At trial, Network-1 objected to evidence of the Fisher System because the witness testimony was completely uncorroborated and because the purported

system was never disclosed or in public use. Appx9521-9522; Appx9543; Appx9071 (8:2-14). The district court overruled Network-1's objections. Appx9550; Appx9072 (9:4). This allowed HP to present "a wealth of evidence" concerning how the Fisher System purportedly renders the '930 claims obvious. Appx9452.

After trial, Network-1 renewed its objection as its primary argument at JMOL and in seeking a new trial. Appx9239; Appx9242; Appx9261-9262. In granting JMOL, the district court agreed that allowing evidence of the Fisher System was error because HP lacked evidence "to corroborate … its key inventive features" and to demonstrate that it "was ever in public use." Appx83. "HP is not challenging these rulings on appeal." HP-Brief 62, n.2. It is therefore undisputed that evidence of the Fisher System was inadmissible.

2. Evidence concerning the Fisher System was prejudicial.

There can be no greater prejudice to a patent holder than evidence and argument that a patent is invalid in light of inadmissible non-prior art. Indeed, doing so invites the jury to commit legal error. *See Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 (Fed. Cir. 1987) ("the '869 tie was not prior art and … reliance on it [in an obviousness combination] was legal error"); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed. Cir. 1986) ("determin[ing] the '814 patent was obvious" based on "evidence that was not prior art" is "improper[]").

This is precisely what happened below. HP asserted an obviousness theory that included the inadmissible non-prior art Fisher System. "At trial, the only invalidity theory HP presented to the jury was obviousness based on the combination of 'the Fisher patents, the Fisher system, Woodmas, and Chang.'" Appx78 (quoting Appx2572 (63:15-17)). And, in support of this theory, HP presented evidence and argument to demonstrate that the inadmissible Fisher System rendered the '930 claims obvious. *See, e.g.,* Appx1520 (203:20-23); Appx2345-2346 (23:1-24:5); Appx2505 (183:23-25).

Moreover, the prejudice was especially strong here for three reasons.

First, the Fisher System was not a minor component of HP's invalidity case; it was the primary focus. Dr. Fisher (a seemingly disinterested non-party witness who described his system in detail) was the only lay witness who testified about prior art. Appx9182-9209 (119:1-146:2). And Dr. Fisher's testimony was repeatedly referenced in HP's opening statement, its closing argument, and its expert's testimony comparing the claims to the prior art. Appx1519-1520 (202:13-203:24); Appx1527 (210:8-16); Appx1534-1535 (217:24-218-4); Appx1536 (219:4-9); Appx2337 (15:6-17); Appx2341 (19:21-25); Appx2345-2346 (23:1-24:5); Appx2356 (34:2-19); Appx2633-2635 (124:22-126:8).

As HP itself admits, the jury heard "a wealth of evidence" "regarding the Fisher System" including "nearly 30 minutes of detailed testimony from Dr. Fisher" and a "thorough analysis of the actual Fisher System" from both Dr. Fisher

and HP's invalidity expert, Dr. Neikirk. Appx9452. In addition to testimony, certain physical components of the Fisher System were in the courtroom throughout trial ("The Fisher System is over here on the defense table," Appx2341 (19:21-25)), and the jury was urged to examine the system during deliberations: "when you get back in the jury room and you'll have it with you" and "I want you to look at it," Appx2633-2634 (124:22-125:18).

Second, the jury certainly relied on a combination that included the inadmissible Fisher System when it found the patent obvious because HP only *asserted one singular theory of obviousness*, and that theory included the Fisher System. "At trial, the only invalidity theory HP presented to the jury was obviousness based on the combination of 'the Fisher patents, the Fisher system, Woodmas, and Chang.'" Appx78 (quoting jury instructions, Appx2572 (63:15–17)).

In its appeal brief, HP for the first time asserts that it also presented a second "alternative" theory of invalidity: a combination that did not include the Fisher System (what HP calls the "Fisher Patents Ground"). HP-Brief 62. That assertion is false.

The jury instructions, HP's counsel, and HP's invalidity expert repeatedly emphasized that HP was asserting one obviousness combination, and the combination included the Fisher System. "[O]ur combination is not Fisher, Chang, and Woodmas on the patents only. … Ours is … the Fisher system, Fisher,

Chang, and Woodmas …. That was [how] we charted it. That's how we presented the defense from the beginning." Appx9157-9158 (94:18-95:4); Appx2572 (63:15–17); Appx2356 (34:2-6) ("Q. Tell us about this combination. … A. So I'm combining the Fisher system, the three Fisher patents, the Chang patents and Woodmas. And to do this let me start with the Fisher system."); Appx9149 (86:9-16); Appx1932-1933 (9:25-10:3).

Third, the Fisher System made the difference between winning and losing. HP told the jury: "Fisher… only patented certain sections of the system. I will tell you that the [Fisher] patent does not cover detection. That has to be covered through something else. But the 1996 [Fisher] system did" include detection. Appx1527 (210:8-16). HP argued that the Fisher System solved a fatal problem in HP's invalidity case—the missing "low level current" detection method. HP presented Dr. Fisher's (uncorroborated) testimony that his system performed detection "to make certain … nobody inadvertently attached a regular Ethernet device," that it "set a current limit" during detection, and that "the power that was used during the detection" was not "sufficient to power the entire access device." Appx9195-9196 (132:2-133:12); Appx9198-9199 (135:24-136:14). Then HP argued to the jury: "the power that was used during the detection" in the Fisher System was not "sufficient to power the entire access device," instead it "just began to send a low current." Appx2640 (131:5-18).

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Because evidence of the Fisher System was inadmissible and prejudicial, Network-1 is entitled, in the alternative, to a new trial on invalidity.

VII. HP's broadening argument fails.

HP asserts that Network-1 impermissibly broadened the scope of claim 6 and other asserted claims during reexamination. HP-Brief 69-73. HP is wrong.

A. Adding dependent claims 15 and 16 during reexamination could not possibly have broadened the scope of independent claim 6.

First, the statute governing HP's broadening challenge applies solely to an "amended or new claim," not to an original unamended claim. 35 U.S.C. § 305. Claim 6 was neither amended nor new—the language of claim 6 was identical before and after reexamination.

As recognized by the district court (and ignored by HP on appeal): "Original patent claims will always survive [improper broadening challenges]…. The original claims cannot be broader than themselves." *MBO Labs., Inc. v. Becton, Dickenson & Co.*, 602 F.3d 1306, 1319 (Fed. Cir. 2010). A claim cannot be broadened unless a limitation is eliminated. Consequently, absent a contrary stipulation of the parties, an unamended claim can never be improperly broadened. HP does not address the controlling statute or distinguish *MBO Labs*.

Second, HP erroneously argues that the addition of dependent claims 15 and 16 during the reexamination broadened independent claim 6. As recognized by the

district court (and ignored by HP on appeal), "dependent claims cannot broaden an independent claim from which they depend." *Enzo Biochem, Inc. v. Applera Cop.*, 780 F.3d 1149, 1156-57 (Fed. Cir. 2015). HP does not attempt to distinguish *Enzo*.

If a dependent claim added during reexamination were broader than an original underlying independent claim, the remedy would be to invalidate the dependent claim, not to broaden the scope of the underlying independent claim and then invalidate it. A dependent claim, which is "outside the scope" of the underlying independent claim, is "invalid for failure to comply with §112, ¶4." *Phizer, Inc. v, Ranbaxy Labs., Ltd.*, 475 F.3d 1284, 1292 (Fed. Cir. 2006); *MBO Labs*, 602 F.3d at 1319 ("When a reissue patent contains the unmodified original patent claims and the reissue claims, a court can only invalidate the reissue claims under the rule against recapture."). HP does not attempt to distinguish this controlling law.

B. HP's reliance on *ArcelorMittal* fails.

HP hinges its argument on *ArcelorMittal France v. AK Steel Corp.*, 786 F.3d 885 (Fed. Cir. 2015). But *ArcelorMittal* did not rewrite section 305 or overrule controlling precedent.

The sole issue in *ArcelorMittal* was whether the patent holder could retroactively broaden the scope of pre-reissue claims by adding broader dependent claims and then *stipulating* that all reissued claims were broader than the original claims. Having lost a prior case based on a narrow construction that was affirmed

on appeal, the patent holder *stipulated* that the post-reissue claims were broader than the pre-reissue claims. *ArcelorMittal*, 786 F.3d at 890; Appx41. The defendants responded by arguing that the district court was bound by the mandate of this Court affirming the narrower construction and by the law-of-the-case doctrine. The plaintiff argued that an exception applied for "new evidence" by virtue of the subsequent prosecution history, which purported to broaden the claim scope. *ArcelorMittal*, 786 F.3d at 889.

This Court held, "[t]he successful prosecution of [a reissue] patent is not 'new evidence' sufficient to trigger the extraordinary circumstances exception to the mandate rule and the law-of-the-case doctrine." *Id*. "Under the law-of-the-case doctrine, therefore, the district court was bound by this court's prior construction of the original claims, which ArcelorMittal concedes was narrower than the scope of the reissue claims." *Id*. at 890.

ArcelorMittal has no relevance here.

<u>First</u>, the *ArcelorMittal* Court never addressed the scope of the reissued claims (which was stipulated) and never suggested (much less held) that adding a dependent claim broadens the scope of an original independent claim. *ArcelorMittal* actually held *the exact opposite*: "we have never found that such reissue prosecution history is relevant to whether an applicant broadened the scope of an original claim," and it is contrary to controlling precedent for "later-

generated reissue prosecution history to inform the scope of the very same claim limitation from the original patent." *Id*. at 890.

Second, HP quotes, out of context, the statement that adding the dependent claim had "the practical effect of expanding the scope of claim 1." HP-Brief 70 (quoting *ArcelorMittal*, 786 F.3d at 890). The Court made that statement while determining whether the reissue prosecution history was "new evidence." The Court merely affirmed that while a narrowing disclaimer during prosecution could be new evidence, prosecution history that would have "the practical effect of expanding the scope of" the claim has no effect and, therefore, was not "new evidence." *Id*. at 889-90. This Court never held that a dependent claim added in a reissue (or reexamination) broadens an underlying independent claim.

C. The claim scope was the same before and after reexamination.

HP asserts that the scope of "secondary power source" was broader after the reexamination because: (i) the construction of "secondary power source" by the *Cisco* court required complete physical separation between the main and secondary power sources, (ii) the "secondary power source" in dependent claims 15 and 16 was broader than the *Cisco* construction, and (iii) as a result, the construction of "secondary power source" post-reexamination was broader than the construction pre-reexamination. HP-Brief 69-71. All three assertions are false.

First, the *Cisco* construction did not require completely different physical components between the main and secondary power sources. The court expressly

stated: "the Court's construction … does not require 'separate identifiable physical elements' for each of the power sources [it] requires only that there be physically separate 'driving points.'" Appx349-350; Appx33 (same).

Second, dependent claims 15 and 16 were perfectly consistent with the *Cisco* construction—both claims could be satisfied by main and secondary power sources sharing the same physical components as their source of power but having physically separate driving points. Appx334.

Third, it is undisputed that the construction of "secondary power source" after the reexamination was the same as the construction before; accordingly, the reexamination had no effect on claim scope. In fact, the district court expressly stated: "Reaching the same conclusion as *D-Link* and *Cisco*, the secondary power source must be physically separate from the main power source…. However, Network-1 is correct that *Cisco* explains that 'the Court's construction … does not require separate identifiable physical elements for each of the power sources [it] requires only that there be physically separate 'driving points.'" Appx33 (quoting Appx349-350).

As HP admits: "The district court's construction [after reexamination] is consistent with how the *D-Link* and *Cisco* courts construed this term [pre-reexamination]." HP-Brief 15. That admission is dispositive. Without any broadened claim scope, there can be no improper broadening.

D. Disclaiming claims 15 and 16 eliminated HP's broadening argument.

HP asserts that by disclaiming claims 15 and 16, Network-1 "confirm[ed] that it impermissibly broadened these claims" and "put the public on notice" of the broader scope. HP-Brief 72. But the public could have concluded that unamended claim 6 was broadened by the disclaimed claims only if the public ignored the controlling statute, Federal Circuit precedent, and the actual scope of the district court's construction of "secondary power source," not to mention *the disclaimer*, which is just as much a part of the public record as the disclaimed claims themselves.

Disclaiming claims 15 and 16 (the source of HP's argument) should have eliminated HP's broadening argument and allowed the parties to avoid wasting resources (e.g. pages in this brief) addressing that argument. Disclaiming claims is not "gamesmanship" that allows a patentee improperly to "expand its monopoly," as HP asserts. HP-Brief 73. Disclaiming a dependent claim should, as HP admits, "eliminate any risk of invalidation under Section 305" for an unamended independent claim (HP-Brief 73), which confirms that the unamended independent claim was *not* broadened, which means the patentee was *not* able to "expand its monopoly" (*id*.).

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Because the asserted claims were not broadened during reexamination, HP's challenge fails.

Conclusion

The judgment of non-infringement should be reversed and the case remanded for a new trial on infringement. The judgment of no invalidity should be affirmed.

Date: May 15, 2019

/s/ Gregory S. Dovel
Gregory S. Dovel
Sean A. Luner
Richard E. Lyon, III
DOVEL & LUNER, LLP
201 Santa Monica Blvd., Suite 600
Santa Monica, CA 90401
(310)656-7066

Attorneys for Plaintiff-Appellant Network-1 Technologies, Inc.

CERTIFICATE OF SERVICE

Counsel hereby certifies that on May 15, 2019, I electronically filed the foregoing Response and Reply Brief of Appellant Network-1 Technologies, Inc. with the Clerk of the Court for the United States Court of Appeals for the Federal Circuit by using the appellate CM/ECF system.

Participants in the case who are registered CM/ECF users will be served by the appellate CM/ECF system.

Upon acceptance by the Clerk of the Court of the electronically filed document, the required number of paper copies of the Brief of Appellant Network-1 Technologies, Inc. will be delivered to the Office of the Clerk, United States Court of Appeals for the Federal Circuit in accordance with the Federal Circuit Rules.

Date: May 15, 2019

Respectfully submitted,

/s/Gregory S. Dovel
Counsel for Plaintiff-Appellant Network-1 Technologies, Inc.

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1. This brief complies with the type-volume limitation of Fed. R. App. P. 28.1(e)(2) or 32(a)(7)(B), which were in effect on the docketing date of this case, because:

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Date: May 15, 2019

Respectfully submitted,

/s/Gregory S. Dovel
Counsel for Plaintiff-Appellant Network-1 Technologies, Inc.