

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

OPENTV, INC.,
Patent Owner.

Case IPR2015-00969
Patent 5,884,033

Before JAMES B. ARPIN, DAVID C. MCKONE, and
SCOTT C. MOORE, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Apple Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1, 2, 9, 15, and 23 of U.S. Patent No. 5,884,033 (Ex. 1001, “the ’033 patent”). OpenTV, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”). Pursuant to 35 U.S.C. § 314, in our Decision to Institute (Paper 8, “Dec.”), we instituted this proceeding as to each of the challenged claims.

After institution, Patent Owner filed a Patent Owner’s Response (Paper 14, “PO Resp.”), and Petitioner filed a Reply to the Patent Owner’s Response (Paper 16, “Reply”). An oral argument was held on June 21, 2016, and a transcript of that hearing is part of this record. Paper 21 (“Tr.”).

Petitioner relies on the testimony of Charles D. Knutson, Ph.D. Ex. 1010 (“Knutson. Decl.”). Patent Owner relies on the testimony of Justin D. Tygar, Ph.D. Ex. 2002 (“Tygar Decl.”).

We have jurisdiction under 35 U.S.C. § 6(c). This Decision is a final written decision under 35 U.S.C. § 318(a) as to the patentability of the challenged claims. Based on the record before us, Petitioner has not demonstrated, by a preponderance of the evidence, that any challenged claim of the ’033 patent is unpatentable.

B. Related Matter

The ’033 patent has been asserted in *OpenTV, Inc. v. Apple, Inc.*, Case No. 3:14-cv-01622-HSG (N.D. Cal.) (“District Court Litigation”). Pet. 2; Paper 5, 2.

C. The Instituted Grounds

We instituted a trial on the following grounds (Dec. 31):

Claims 1, 2, 15, and 23, under 35 U.S.C. § 102(e), as anticipated by
U.S. Patent No. 5,790,554, issued August 4, 1998 (“Pitcher”);
and

Claim 9, under 35 U.S.C. § 103(a), as obvious over Pitcher.

II. ANALYSIS

A. The '033 Patent

The '033 patent describes techniques for filtering material transmitted over the Internet, for example to block access to materials that users might find objectionable. Ex. 1001, 1:11–30. Figure 2, reproduced below, illustrates an example:

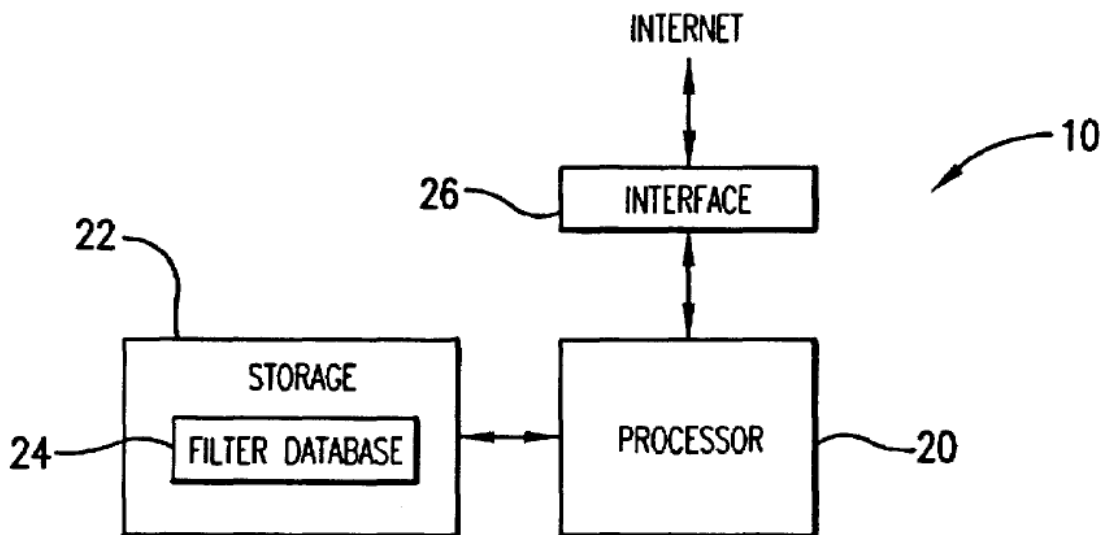


FIG.2

Figure 2 is a block diagram of a client computer system with a filtering system. *Id.* at 2:26–27.

To access a website, a user, at client computer 10, transmits a uniform resource locator (“URL”) to a domain name server (“DNS”), which looks up a domain name corresponding to the URL and returns to the client an Internet Protocol (“IP”) address for the website. *Id.* at 2:63–3:17.

Ordinarily, the client then opens a Transmission Control Protocol (“TCP”) data stream and uses this IP address to communicate with the website. *Id.* at 3:18–19.

As shown in Figure 2, client 10 communicates with the Internet through interface 26. *Id.* at 3:50–51. The ’033 patent describes a convention to which interface 26 conforms, whereby certain default ports are associated with certain protocols (e.g., Hypertext Transfer Protocol (“HTTP”) communications are transmitted through port 80). *Id.* at 3:50–54. Client 10 includes processor 20, which processes a filtering system for filtering communications through interface 26. *Id.* at 3:42–45. Processor 20 is coupled to storage 22 that stores filter database 24. *Id.* at 3:42–49.

Filter database 24 stores lists of filters identified as “ALLOW” and “BLOCK” filters, preferably having fields for port number and IP address, for allowing and blocking transmissions. *Id.* at 3:64–4:1. Each filter has a field for specifying an action the client takes, if that filter is retrieved. *Id.* at 4:12–14. The filters are divided into two groups: (1) direct action filters, which are scanned first and whose “actions are carried out immediately,” that “indicate that the system should unconditionally allow or unconditionally block the transmission”; and (2) deferred action filters that have additional fields specifying conditions that must be met before action is

taken (e.g., a message contains a keyword or matches a filter pattern, such as a string of characters). *Id.* at 4:14–21, 4:65–5:19.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for communicating with servers over the Internet to prevent or allow access to Internet sites, the method comprising computer-implemented steps of:
 - (a) opening a data stream to send a message through an interface to an Internet server;
 - (b) maintaining a database of filtering information comprising a table of filters, said table comprising
 - (1) filters specifying immediate action, and
 - (2) filters specifying deferred action;
 - (c) comparing information in the message to filtering information in at least one of said filters specifying immediate action and said filters specifying deferred action; and
 - (d) determining whether to prevent or allow the outgoing transmission of the message based on the comparison.

B. Claim Construction

Ordinarily, we interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–45 (2016). Nevertheless, the '033 patent is expired. Tr. 10:8–10. “[T]he Board’s review of the claims of an expired patent is similar to that of a district court’s review.” *In re Rambus Inc.*, 694 F.3d 42, 46 (Fed. Cir. 2012) (internal citations omitted). District courts

construe claims in accordance with their ordinary and customary meanings, as would be understood by a person of ordinary skill in the art, in the context of the specification. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Claim 1 recites maintaining, in a database, a table of filters comprising “(1) filters specifying immediate action, and (2) filters specifying deferred action.” Independent claims 15 and 23 include similar recitations. Petitioner and Patent Owner dispute the constructions of these two recited “filters.” Although the parties dispute the meaning of other terms, such as “Internet sites” (Pet. 20–21; PO Resp. 21–23), the constructions of the “filters” terms are dispositive, and it is unnecessary to reach the parties’ arguments as to other terms.

1. The Preliminary Constructions in the Decision to Institute

In the Petition, Petitioner contended that “filters specifying immediate action” means “filters specifying whether transmission of the message should be allowed or blocked based on a port number or network address specified in the message,” and that “filters specifying deferred action” are “filters specifying whether transmission of the message should be allowed or blocked based on information in the message other than a port number or network address.” Pet. 15, 18.

Both “filters specifying immediate action” and “filters specifying deferred action” were construed by the District Court in the District Court Litigation. Ex. 2001 (Claim Construction Order), 3–7, 22. Although we are not bound by the District Court’s constructions, we followed the Federal Circuit’s directive to consider the District Court’s reasoned analysis,

especially because we applied the *Phillips* standard. Dec. 9 (citing *Power Integrations, Inc. v. Lee*, 797 F.3d 1318, 1326 (Fed. Cir. 2015) (“The fact that the board is not generally bound by a previous judicial interpretation of a disputed claim term does not mean, however, that it has no obligation to acknowledge that interpretation or to assess whether it is consistent with the broadest reasonable construction of the term.”)).

The District Court (Ex. 2001, 9 (emphases added)) construed the disputed terms as follows:

“filters specifying immediate action”	“filters that, once they are retrieved, specify whether to allow or block a transmission immediately and unconditionally <i>and operate between the presentation and application levels of the seven-level ISO protocol model</i> ”
“filters specifying deferred action”	“filters that, once they are retrieved, defer the specification of whether to allow or block a transmission until additional conditions are satisfied <i>and operate between the presentation and application levels of the seven-level ISO protocol model.</i> ”

Upon consideration of the District Court’s constructions, we preliminarily construed the terms as follows:

“filters specifying immediate action” means “filters that, once they are retrieved, specify whether to allow or block a transmission immediately and unconditionally” and

“filters specifying deferred action” means “filters that, once they are retrieved, defer the specification of whether to allow or block a transmission until additional conditions are satisfied.”

Dec. 11. Notably, we did not adopt the District Court’s language, italicized above, in each construction that the filters “operate between the presentation

and application levels of the seven-level ISO¹ protocol model.” To that end, we acknowledged the District Court’s reasoning that the additional language was required based on prosecution history disclaimer. Dec. 11 n.2 (citing Ex. 2001, 8–9, 22). Nevertheless, we concluded that the additional language was not appropriate for our preliminary constructions, as it was not proposed by either party in this proceeding (Petitioner opposed its inclusion, Pet. 17–18), and the District Court’s construction was based, in part, on evidence and argument not presented in this proceeding. *Id.*

The parties no longer dispute the aspects of the District Court’s constructions that we adopted. PO Resp. 15. Nevertheless, Patent Owner now argues for inclusion of the District Court’s additional language, “and operate between the presentation and application levels of the seven-level ISO protocol model,” in each of the two constructions. PO Resp. 14–21. Petitioner continues to oppose inclusion. Reply 2–6. We revisit our constructions of “filters specifying immediate action” and “filters specifying deferred action” and adopt the District Court constructions in their entirety, as explained below.

¹ At times, the record refers to the “ISO” protocol model and, at others, refers to the “OSI” protocol model. Likely this is because the Open Systems Interconnect (“OSI”) model was developed by the International Organization for Standardization (“ISO”). *See* IEEE 100, THE AUTHORITATIVE DICTIONARY OF IEEE STANDARDS TERMS 765 (7th ed. 2000) (Ex. 3001). As it pertains to the record in this proceeding, we understand the OSI protocol model and the ISO protocol model to be one and the same. *See also* Knutson Decl., Ex. 1010 ¶ 36 n.2.

2. Prosecution History Disclaimer

“[The Federal Circuit has] recognized that a ‘clear and unmistakable’ disavowal during prosecution overcomes the ‘heavy presumption’ that claim terms carry their full ordinary and customary meaning.” *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013) (quoting *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323, 1326 (Fed. Cir. 2003)). Specifically, “when the patentee unequivocally and unambiguously disavows a certain meaning to obtain a patent, the doctrine of prosecution history disclaimer narrows the meaning of the claim consistent with the scope of the claim surrendered.” *Id.*

The applicants for the ’033 patent introduced the claim language “filters specifying immediate action” and “filters specifying deferred action” in a January 7, 1997, Amendment. Ex. 1007, 0058–0066.² The applicants were facing rejections to the then-pending claims based on the Shwed reference. *Id.* at 0046–0051. To overcome these rejections, the applicants added the following, underlined language to several of the pending independent claims:

maintaining a database of filtering information comprising a table of filters, said table comprising

(1) filters specifying immediate action, and

(2) filters specifying deferred action;

Id. at 0058, 0060, 0061. The applicants also added a new independent claim that included this language. *Id.* at 0062–0063.

² We refer to the page numbering supplied by Petitioner in the lower-right corner of the pages of Exhibit 1007.

In remarks explaining the amendments, the applicants referenced an interview with the Examiner and argued that the amendments overcame the Shwed reference. *Id.* at 0063. The applicants then provided the following argument:

As discussed during the interview, the [Shwed] system and Applicants' methods operate at different layers of the seven-level ISO communication protocol model, illustrated at Fig. 5 and discussed at Col. 6 l. 36–col. 7 l. 46 of [Shwed]. As made clear at Fig. 5 and col. 6 ll. 3–7, the packet filters of [Shwed] operate between the network interface hardware (level 2) and the network software (level 3). *Applicants' filtering methods, by contrast, operate between the presentation and applications levels (layers 6 and 7, respectively) of the seven-level ISO protocol model.* [Shwed] recognizes that the level at which a security system operates has significant consequences, and specifically *teaches away from a system operating on the applications level (layer 7) of the ISO communication protocol model, such as Applicants' filtering methods:*

Different communication protocols employ different levels of the ISO model. A protocol in a certain layer may not be aware to protocols employed at other layers. This is an *important factor* when making security actions. For example, an application (Level 7) may not be able to identify the source computer for a communication attempt (Levels 2–3), and therefore, may not be able to provide sufficient security. [Shwed] patent, col. 6 ll. 57–64 (emphasis added).

Id. at 0064 (italics emphases added; bold italics by applicants).

Patent Owner contends that this is a clear and unmistakable disclaimer of filters specifying immediate action and filters specifying deferred action that do not operate between Layers 6 and 7 of the ISO protocol model (Presentation and Application Layers). PO Resp. 17; *see also Unwired Planet, LLC v. Apple, Inc.*, 2015-1725, 2016 WL 3947839, at *3 (Fed. Cir.

July 22, 2016) (“A disclaimer or disavowal of claim scope must be clear and unmistakable, requiring ‘words or expressions of manifest exclusion or restriction’ in the intrinsic record.”) (quoting *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002)).

Petitioner argues that there is no clear and unmistakable disclaimer because the prosecution history arguments do not indicate how a Layer 6 and 7 limitation would be applied to the specific limitations of claim 1. Reply 4. Specifically, Petitioner points out that the claim limitation “opening a data stream” would happen even without filtering and that the claim limitation “maintaining a database” is unrelated to the ISO protocol model.

For the following reasons, we are persuaded by Patent Owner that the disclaimer is clear and unmistakable. First, the applicants amended their claims to add the limitations “filters specifying immediate action” and “filters specifying deferred action” (Ex. 1007, 0058, 0060–0063), argued that the proposed amendments distinguished the claims over the Shwed reference (*id.* at 0063), and stated, in remarks, that the “filtering methods” of the claims, as opposed to other aspects of the claims, distinguish over Shwed because they operate at Layers 6 and 7 (*id.* at 0064–0065). Second, the applicants’ remarks clearly were directed at the claim language of the amendments, namely “filters specifying immediate action” and “filters specifying deferred action,” rather than other aspects such as “opening a data stream” and “maintaining a database.” Considering this context, there is no ambiguity that the applicants intended to limit “filters specifying immediate action” and “filters specifying deferred action” to filters that operate between Layers 6 and 7 of the ISO protocol model. Further, as Patent

Owner points out (PO Resp. 17), Petitioner initially interpreted the applicants' remarks in this way. Pet. 17 ("The patentee during prosecution argued that the *claimed filters* operate 'between the presentation and application levels (layers 6 and 7, respectively) of the seven-level ISO protocol model.'") (Patent Owner's emphasis)). Additionally, the District Court concluded that this disclaimer was clear and unmistakable. Ex. 2001, 8.

Nevertheless, Petitioner now argues that the applicants did not amend the claims to specify that the claimed filtering methods operate between Layers 6 and 7 of the ISO protocol model. Reply 3. Indeed, the terms "Layers 6 and 7," "Presentation Layer," and "Application Layer" do not appear in the claims, as amended. Petitioner's argument, however, is not persuasive. According to the Federal Circuit, statements of prosecution history disclaimer "can take the form of either amendment or argument." *Biogen Idec*, 713 F.3d at 1095. Here, we are persuaded that the applicants disclaimed subject matter through argument. As the District Court recognized, "if a patentee were required to amend his claims in order to limit their scope, there would be no need to examine the prosecution history for clear and unmistakable disavowals in the first place." Ex. 2001, 8.

Although it does not articulate them expressly, Petitioner alludes to additional arguments when providing a summary of the prosecution history (Pet. 10–14). Following the above-quoted remarks in the prosecution history, the applicants continued:

These fundamental differences between the [Shwed] network security system and Applicants' filtering methods are further illustrated in the operation of the two types of filters in Applicants' methods. [Shwed] does not disclose the use of

immediate action and deferred action filters as embodied in Applicants' methods. The deferred action filters in Applicants' methods include additional fields, such as a keyword field, a filter pattern field, a directional indicator field, or a compare directive field, that are neither disclosed nor suggested by [Shwed]. See specification, p. 8 ll. 17–28. The presence of these filters together with the direct action filters allows the type of highly selective filtering that is characteristic of Applicants' invention.

Ex. 1007, 0064–0065. Petitioner quotes this language and argues that “the internet packet filtering system of [Shwed] . . . lacked the ability to perform pattern matching on fields, other than port and address, and thus did not disclose the ‘deferred action’ filters added by amendment.” Pet. 12. Here, Petitioner alludes to an argument that the applicants actually distinguished the claims from Shwed based on other characteristics of the “deferred action” filters, rather than operation at Layers 6 and 7. This argument was raised before, and rejected by, the District Court. Ex. 2001, 8 (“[Petitioner] seems to argue that this statement cannot constitute an unequivocal and unambiguous disclaimer because the patentee also distinguished the [Shwed] prior art by amending the ’033 Patent to require two types of filters instead of just one.”). Specifically, the District Court “[saw] no reason a patentee cannot distinguish prior art on two independent grounds, and [Petitioner] does not cite to any authority to the contrary.” *Id.* To the extent that Petitioner is raising this argument now, we find it unpersuasive for the same reasons given by the District Court.

Also, in summarizing the prosecution history, Petitioner contends that the Examiner rejected the argument that filters operating between Layers 6 and 7 distinguish the amended claims over the prior art. Pet. 13. According to Petitioner, the applicants made additional distinctions and arguments and

conducted another interview with the Examiner before the Examiner allowed the claims. *Id.* at 13–14. At the oral argument, Petitioner argued that the Layers 6 and 7 distinction was not the reason that the claims were found to be patentable over Shwed. Tr. 16:9–20. The Federal Circuit has rejected such arguments, and so do we. *See Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003) (“[W]hen the applicant amended the claims and made accompanying remarks to overcome a rejection based on another patent, we stated that the fact that ‘the prosecution shifted to a different focus does not blunt the impact of those remarks made to overcome the prior rejection.’ . . . Because an examiner has the duty to police claim language by giving it the broadest reasonable interpretation, it is not surprising that an examiner would not be satisfied with the applicant’s insistence that particular claim language distinguishes a prior art reference, but that a court would later hold the patentee to the distinction he pressed during prosecution.” (citations omitted) (quoting *Desper Prods., Inc. v. QSound Labs, Inc.*, 157 F.3d 1325, 1336 (Fed. Cir. 1998))). As noted above, the applicants’ disclaimer here is similarly clear and unmistakable despite additional argument and amendment necessary to secure allowance of the claims.

In summary, we conclude that the prosecution history of the ’033 patent includes a clear and unmistakable disclaimer of “filters specifying immediate action” and “filters specifying deferred action” that do not operate between Layers 6 and 7 of the ISO protocol model.

3. *Application of the tools of claim construction to “filters specifying immediate action” and “filters specifying deferred action”*

Prosecution history disclaimer is but one of several tools we use to construe claims. The parties dispute the application of these additional tools and their impact on prosecution history disclaimer.

First, we look to the Specification. Petitioner argues that there is no support in the Specification of the '033 patent for “filters specifying immediate action” and “filters specifying deferred action” operating only at Layers 6 and 7. Pet. 17. According to Petitioner, the applicants for the '033 patent, in the amendment and remarks discussed above, did not identify any Specification support for their statement that the filtering methods operate between Layers 6 and 7. Reply 3. Petitioner further argues that the Specification does not discuss the ISO protocol model and, instead, describes TCP/IP as the protocol used in networks implementing the claimed invention. *Id.* at 4. Petitioner contends that the TCP/IP protocol does not include a Presentation Layer (Layer 6). *Id.* at 4–5. The District Court rejected a similar line of argument, “that it is ‘nonsensical’ to filter messages on the basis of an IP address, for example, at the application or presentation layer, because such filter could only operate at layer 3 (network layer),” concluding that “[Petitioner] admitted at the technology tutorial that ‘[a]ll of the information . . . is available’ at each layer of the model.” Ex. 2001, 8–9 (quoting Ex. 2003, 53:17:24). In other words, although a piece of information might be associated with a particular layer, it nevertheless would be visible to applications operating at other layers.

In response, Patent Owner argues that the Specification describes filtering “messages,” rather than “packets.” PO Resp. 17. According to

Patent Owner, a skilled artisan would have understood “message” to refer to a higher-layer construct, such as would be present at Layer 7, while “packet” refers to a lower-layer construct that would be present at Layers 2 or 3. *Id.* at 17–18. Patent Owner relies on Dr. Tygar’s testimony (Ex. 2002 ¶¶19–20, 32), where he cites to Andrew S. Tanenbaum, *COMPUTER NETWORKS* (3rd ed. 1996) (Ex. 2004, “Tanenbaum”). As Patent Owner acknowledged at the oral argument, however, Tanenbaum uses the term “message” in connection with Layers 2 and 3, undermining the basis for Dr. Tygar’s testimony. Tr. 32:11–17; Ex. 2004, 21 (“he passes a message (in English) across the 2/3 interface”). We accord Dr. Tygar’s testimony little weight on this point.

Patent Owner also argues that the Specification describes filtering messages sent over Layer 7 protocols, such as HTTP. PO Resp. 18 (citing Ex. 1001, 2:42–50, 5:52–65, 6:10–18; Ex. 2002 ¶ 32.). We are not persuaded that these passages constitute clear description of filters operating at Layer 7, although we do not read these passages to preclude operation at that layer either. Dr. Tygar’s testimony is unhelpful, as it merely repeats the arguments in the Patent Owner Response without providing further clarity. Ex. 2002 ¶ 32.

Here, neither party has shown conclusively that the Specification supports its position. The prosecution history disclaimer, however, is clear and unmistakable. Looking at the record as a whole, Petitioner has not presented sufficiently persuasive evidence or argument that the description in the Specification somehow would prevent application of prosecution history disclaimer, as detailed above. *See Unwired Planet*, 2016 WL

3947839, at *3 (“Every claim construction, and each potential disclaimer, has to be considered in the context of each individual patent.”).

Second, Petitioner argues that a requirement that the claimed filters operate only between Layers 6 and 7 is inconsistent with the doctrine of claim differentiation. As the Federal Circuit has stated, “[d]ifferences among claims can also be a useful guide in understanding the meaning of particular claim terms. For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1314–15 (internal citations omitted). Claim 3 depends from claim 1 and recites, *inter alia*, “the filters specifying immediate action comprise fields specifying . . . an Internet Protocol (IP) address,” and claim 4 depends from claim 3 and recites “comparing an Internet Protocol (IP) address of the message to the filtering information.”

Petitioner argues that claims 3 and 4 add limitations to claim 1 that would be inconsistent with a reading that the filters of claim 1 are limited to those that operate at Layers 6 and 7. Pet. 17–18. Specifically, Petitioner argues that IP addresses are part of Layer 3 of the ISO protocol model, rather than Layers 6 and 7. *Id.* Petitioner cites to Dr. Knutson’s testimony in support of this argument. *Id.* (citing Ex. 1010 ¶ 36). Dr. Knutson, however, does not add materially to Petitioner’s argument, other than to confirm that IP is commonly associated with Layer 3, rather than Layers 6 and 7. Ex. 1010 ¶ 36.

In response, Patent Owner argues that IP addresses can be used at higher protocol layers and that the ’033 patent describes an example. PO Resp. 18–20 (citing Ex. 1001, 3:13–19). According to the cited passage, a

DNS looks up a domain name and returns an IP address associated with that domain name. Ex. 1001, 3:13–19. Dr. Tygar testifies that DNS is an Application Layer (Layer 7) protocol. Ex. 2002 ¶¶ 32–33. Patent Owner further argues that Petitioner’s admission to the District Court, during the technology tutorial, that an IP address is available at every layer of the ISO protocol model is relevant to this point as well. PO Resp. 18–19 (citing Ex. 2003, 53:10–54:11). As noted above, the District Court relied on this admission in its ruling. Ex. 2001, 9. Petitioner does not address these arguments in its Reply.

On this record, we find that Petitioner has not shown that claims 3 and 4 would be inconsistent with claim 1 if claim 1 is limited by the applicants’ statements in the prosecution history. We credit Patent Owner’s evidence (bolstered by Petitioner’s admission during the District Court Litigation), that, although IP addresses are associated with Layer 3, they nevertheless would be visible to and usable by filters operating at Layers 6 and 7. In any case, the Federal Circuit has stated, “prosecution history disclaimer can overcome the presumption of claim differentiation.” *Biogen Idec*, 713 F.3d at 1097. That is the case here. Petitioner’s evidence of claim differentiation is, at best, equivocal, while the disclaimer in the prosecution history is clear and unmistakable.

Finally, Petitioner argues that, if the claims are construed to require filters operating only at Layers 6 and 7, the claims then would be invalid under 35 U.S.C. § 112 ¶ 1 for failure to comply with the written description requirement. Reply 5. As to this argument, Petitioner contends that “there is no description at all of the alleged limitation that the claimed filtering method operates between layers 6 and 7 of the ISO protocol model,” and

that “[i]t would be impossible for one skilled in the art to reasonably conclude the inventor had possession of a filtering method operating at levels 6 and 7.” *Id.* at 5–6.

As an initial matter, compliance with the written description requirement of Section 112, Paragraph 1, is not an issue that Petitioner is permitted to raise in the Petition. *See* 35 U.S.C. § 311(b). Moreover, the Supreme Court has suggested that finding a claim invalid under Section 112 in an *inter partes* review proceeding would exceed our statutory authority. *See Cuozzo*, 136 S. Ct. at 2141–42 (“[W]e do not categorically preclude review of a final decision where a petition fails to give ‘sufficient notice’ such that there is a due process problem with the entire proceeding, nor does our interpretation enable the agency to act outside its statutory limits by, for example, canceling a patent claim for ‘indefiniteness under § 112’ in *inter partes* review.” (citations omitted)). Thus, we do not reach whether the challenged claims comply with the written description requirement of Section 112, Paragraph 1.

Moreover, this is not a case for the application of the axiom of construing claims to preserve their validity. The Federal Circuit has “admonished against judicial rewriting of claims to preserve validity” and has instructed, “unless the court concludes, after applying all the available tools of claim construction, that the claim is still ambiguous, the axiom regarding the construction to preserve the validity of the claim does not apply.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 911 (Fed. Cir. 2004) (citations omitted). In *Liebel-Flarsheim*, during prosecution, “the applicants replaced claims that had included references to a pressure jacket with a new set of claims, many of which did not include the pressure jacket

limitation,” which the Federal Circuit found was “a strong indication that the applicants intended those claims to reach injectors that did not use pressure jackets.” *Id.* at 909. The defendant in that case argued that, “if the asserted claims are not construed to require a pressure jacket, those claims ‘would be of doubtful validity.’” *Id.* at 911. Nevertheless, the Federal Circuit reasoned, “it would be improper to disregard the effect of [the prosecution history] on the scope of those claims simply because the claims, if broadly construed, might be vulnerable to a challenge to their priority and validity.” *Id.* The Federal Circuit further explained, “because the proper construction of the claims is clear, the questions of priority and validity are separate issues that must be separately addressed on remand.” *Id.* at 911–12.

The Federal Circuit’s reasoning in *Liebel-Flarsheim* applies in this proceeding. As explained above, during prosecution, the applicants clearly and unmistakably disclaimed “filters specifying immediate action” and “filters specifying deferred action” that operate at layers other than Layers 6 and 7. Although Petitioner has introduced some evidence that the claims would lack written description support if construed in this manner, we do not reach that issue here nor do not apply the axiom of construing the challenged claims to preserve validity because the other tools of claim construction, specifically the prosecution history, leave no ambiguity as to the correct construction. Without deciding the issue of written description support under Section 112, Paragraph 1, we adopt the District Court’s constructions of “filters specifying immediate action” and “filters specifying deferred action”:

“filters specifying immediate action”	“filters that, once they are retrieved, specify whether to allow or block a transmission immediately and unconditionally and operate between the Presentation and Application Layers ³ of the seven-layer ISO protocol model”
“filters specifying deferred action”	“filters that, once they are retrieved, defer the specification of whether to allow or block a transmission until additional conditions are satisfied and operate between the Presentation and Application Layers of the seven-layer ISO protocol model”

C. Alleged Anticipation by Pitcher

Petitioner contends that Pitcher anticipates claims 1, 2, 15, and 23. Pet. 43–51.

To anticipate, a reference must “show all of the limitations of the claims arranged or combined in the same way as recited in the claims.” *Net MoneyIN, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008); *accord In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

1. Overview of Pitcher

Pitcher describes techniques for controlling the forwarding of data packets from a network device (e.g., a local area network (“LAN”) switch) onto a network. Ex. 1005, 3:48–53. Figure 1, reproduced below, illustrates an example:

³ The record uses “layer” interchangeably with “level.” For consistency, we use “layer” in our constructions.

Fig. 1
(PRIOR ART)

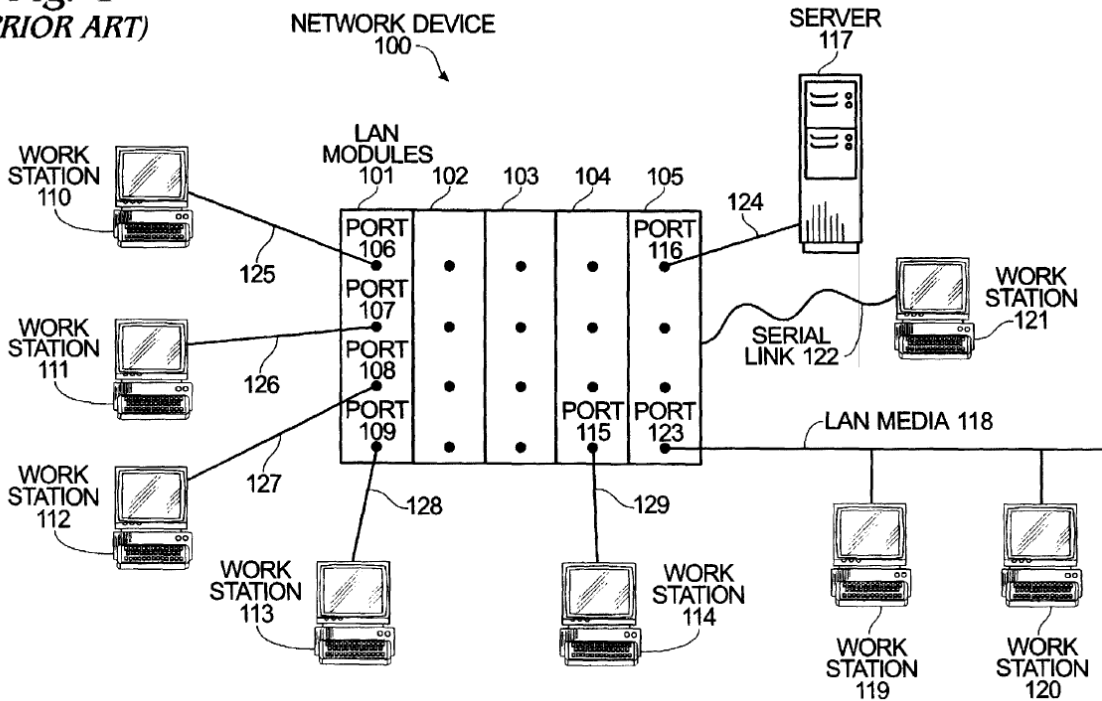


Figure 1 is a block diagram of a network device coupled to other LAN modules. *Id.* at 4:48–49; 5:8–22.

Network device 100 is a LAN switch (although it also could be a hub or bridge). *Id.* at 5:8–13. LAN switch 100 interconnects multiple LAN modules 101–105. LAN module 101, for example, is a Token Ring module interconnecting workstations 110–113, wherein each workstation is coupled through a port (e.g., ports 106–109). *Id.* at 5:13–19. LAN module 105 is an Ethernet module coupled to server 117 through port 116. *Id.* at 5:18–22.

LAN switch 100 also is coupled to workstation 121 (also referred to as a network management station), which allows a system administrator to manage the configuration and operation of LAN switch 100. *Id.* at 5:23–29. The system administrator can configure LAN switch 100, and enable packet filtering on LAN switch 100, using a graphical user interface, such as shown

in Figure 2 (reproduced below), displayed on workstation 121. *Id.* at 6:21–26.

Fig. 2

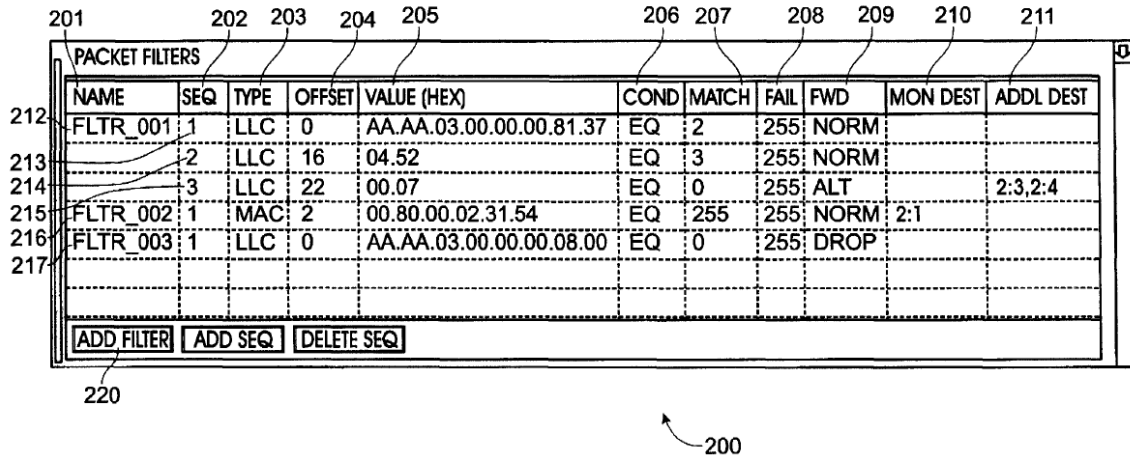


Figure 2 is a diagram of a user interface. *Id.* at 4:50–51.

A packet filter directs a network device to forward certain packets to a specified set of destination ports or to drop packets. *Id.* at 6:26–29. As shown in Figure 2, each filter is configured with, *inter alia*, a sequence number within a group of filters (e.g., FLTR_001 will apply three filters in sequence), a type, a value, and an action to take (e.g., NORM for forwarding a packet normally or DROP for discarding a packet). *Id.* at 6:66–7:16. Pitcher describes one set of filters (FLTR_001) that successively applies three filters, taking action (e.g., NORM or ALT) if the packet is an Internetwork Packet Exchange (“IPX”) packet, an IPX Sap packet, or a printer request, respectively. *Id.* at 7:5–9. Pitcher describes another filter (FLTR_002) that forwards all packets destined for the media access control (“MAC”) address specified in the value field to both the normal destination port and a device attached to module 2. *Id.* at 7:10–15.

2. *Claims 1, 2, 15, and 23*

Regarding claim 1, Petitioner contends that Pitcher's LAN switch, which uses data communications protocols, such as TCP/IP, and forwards packets to specified destination ports, inherently discloses "opening a data stream to send a message through an interface to an Internet server."

Pet. 47. Petitioner further contends that FLTR_002 and FLTR_001 (both discussed above) are a filter specifying immediate action and a filter specifying deferred action, respectively. *Id.* at 45–48 (citing Ex. 1010 ¶¶ 99–102). According to Petitioner and Dr. Knutson, packets are compared to these filters to determine whether to allow the packet to be transmitted normally ("NORM") or to prevent the packets from being transmitted ("DROP"). *Id.* at 48–49 (citing Ex. 1010 ¶¶ 105–07). As to the corresponding filtering limitations in independent claims 15 and 23, Petitioner refers back to its evidence and argument for claim 1, noting, for claim 23, that Pitcher's filters operate on incoming messages as well as outgoing messages. *Id.* at 49–50.

Patent Owner argues that Pitcher's filters do not operate between the Presentation and Application Layers of the ISO protocol model (Layers 6 and 7). PO Resp. 24. Rather, Patent Owner argues, Pitcher states that its filtering methods are performed "on a network device such as LAN switch 100" and that its "network devices such as a LAN switch or bridge operate at the MAC sublayer of the *Data Link* layer of the OSI model." *Id.* at 24–25 (quoting Ex. 1005, 6:21–26, 6:33–37). Dr. Tygar testifies that the Data Link Layer is a Layer 2 protocol. Ex. 2002 ¶ 39. Petitioner conceded at the oral argument that Pitcher does not disclose filters that operate at Layers 6 and 7. Tr. 9:14–23.

Each of independent claims 1, 15, and 23 recites “filters specifying immediate action” and “filters specifying deferred action.” As explained in Section II.B.3 above, per our claim construction, both of these terms require filters that “operate between the Presentation and Application Layers of the seven-layer ISO protocol model.” Based on Patent Owner’s evidence and Petitioner’s corresponding concession, we find that Pitcher does not disclose filters that operate between the Presentation and Application Layers of the ISO protocol model. Accordingly, we find that Petitioner has not shown, by a preponderance of the evidence, that Pitcher anticipates any of claims 1, 15, and 23.

Claim 2 depends from claim 1. We have considered Petitioner’s evidence as to claim 2. Pet. 50–51. This evidence, however, does not overcome the above-noted deficiencies in Petitioner’s showing as to claim 1. Accordingly, Petitioner has not shown by a preponderance of the evidence that Pitcher anticipates claim 2.

D. Alleged Obviousness over Pitcher

Petitioner contends that claim 9 would have been obvious over Pitcher. Claim 9 depends from claim 1 and recites “wherein steps (a)–(d) are all performed by a client computer, step (b) including maintaining the database in storage residing on the client computer.”

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” We resolve the question of obviousness on the basis of

underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art;⁴ and (4) objective evidence of nonobviousness, i.e., secondary considerations.⁵ *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). In an obviousness analysis, some reason must be shown as to why a person of ordinary skill would have combined or modified the prior art to achieve the patented invention. *See Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 (Fed. Cir. 2008).

We have considered Petitioner’s argument and evidence as to claim 9, including Dr. Knutson’s testimony. Pet. 51–52 (citing Ex. 1010 ¶¶ 115–18). This evidence, however, does not overcome the above-noted deficiencies in Petitioner’s showing as to claim 1. Specifically, Petitioner does not contend that the limitations of claim 1 we find missing from Pitcher, nevertheless, would have been obvious over Pitcher. Accordingly, we conclude that Petitioner has not shown by a preponderance of the evidence that claim 9 would have been obvious over Pitcher.

⁴ The parties essentially agree that a skilled artisan would have had a bachelor’s degree or higher in a relevant field (electrical engineering, computer science, computer engineering, or the like). Pet. 10; PO Resp. 12. Petitioner proposes that a skilled artisan would have had two or more years of industry experience, while Patent Owner proposes one to two years. Pet. 10; PO Resp. 12. We do not discern a meaningful difference in the parties’ respective proposals that would affect this proceeding. Indeed, Patent Owner acknowledges that its proposal “is similar to the level of skill in the art proposed by [Petitioner].” PO Resp. 12.

⁵ The record does not contain any evidence of secondary considerations.

III. CONCLUSION

Petitioner has not demonstrated by a preponderance of the evidence that claims 1, 2, 15, and 23 are anticipated by Pitcher. Petitioner also has not demonstrated by a preponderance of the evidence that claim 9 would have been rendered obvious by Pitcher.

IV. ORDER

For the reasons given, it is:

ORDERED, Petitioner has failed to demonstrate by a preponderance of the evidence that any of challenged claims 1, 2, 9, 15, and 23 of U.S. Patent No. 5,884,033 is unpatentable; and

FURTHER ORDERED, because this is a final written decision, the parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2015-00969
Patent 5,884,033

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