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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.

DECISION Institution of *Inter Partes* Review 37 C.F.R. § 42.108

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.").

Upon consideration of the Petition and the Preliminary Response, we are persuaded, under 35 U.S.C. § 314(a), that Petitioner demonstrates a reasonable likelihood that it would prevail in showing the unpatentability of each of the challenged claims. Accordingly, we institute an *inter partes* review of claims 1, 2, 9, 15, and 23 of the '033 patent.

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. References Relied Upon								
Ex. 1002	Baker '645	US 5,961,645	Oct. 5, 1999					
Ex. 1003	Baker '898	US 5,696,898	Dec. 9, 1997					
Ex. 1005	Pitcher	US 5,790,554	Aug. 4, 1998					
Ex. 1006	Schloss	US 5,706,507	Jan. 6, 1998					

Petitioner supports its Petition with the testimony of Charles D. Knutson, Ph.D. (Ex. 1010, "Knutson Decl.").

D. The Asserted Grounds

Petitioner contends that claims 1, 2, 9, 15, and 23 are unpatentable based on the following asserted grounds (Pet. 3):

Reference(a)s	Basis	Claims
Baker '645	§ 102(e)	1, 2, 9, 15, 23
Baker '898	§ 102(e)	1, 2, 15
Baker '898	§ 103(a)	9, 23
Baker '898 and Baker '645	§ 103(a)	9, 23
Pitcher	§ 103(a)	1, 2, 15, 23
Pitcher	§ 103(a)	9
Pitcher and Baker '645	§ 103(a)	9
Schloss	§ 102(e)	1, 2, 9, 15, 23
Schloss	§ 103(a)	1, 2, 9, 15, 23

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 IP address for the website. *Id.* at 2:63–3:17. Ordinarily, the client then opens a 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 3:51–54. 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, which stores filter database 24. *Id.* at 3:45–49.

Filter database 24 stores lists of filters identified as "ALLOW" and "BLOCK" filters, preferably with 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 the filter is retrieved. *Id.* at 4:12–14. The actions 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, 4:65–6:19.

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

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); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed. Cir. 2015). In applying a broadest reasonable construction, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Nevertheless, the '033 patent will expire prior to the statutory deadline for the Board to issue a final written decision in this proceeding. "[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). In order to determine whether Petitioner has demonstrated a reasonable likelihood that it will prevail in this proceeding, given the patent's pending expiration, we will analyze Petitioner's arguments through the lens of the *Phillips* claim construction standard that would apply to any

final written decision. *See, e.g., Toyota Motor Corp. v. Cellport Sys., Inc.,* Case IPR2015-00633, slip op. at 9 (PTAB Aug. 14, 2015) (Paper 11).

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."

Petitioner contends 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*." Pet. 15 (emphasis added). In contrast, Petitioner argues, "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. 18 (emphasis added).

As to "filters specifying immediate action," Petitioner (Pet. 15–16) relies on the following description in the Specification:

Referring to FIG. 3, the filtering system can filter outgoing messages on the basis of the IP address of the host server that is being contacted by the client. The filtering system detects when the client opens the data stream for a particular port and IP address (step 100), and searches the filter database for matching filters. The system first searches by port number to get the list of filters with IP addresses associated with meta value ANY PORT and also with the particular opened port (step 102). The system then checks for and retrieves any filters that match the particular IP address. The retrieved filters are checked to determine if any require immediate action, i.e., if unconditional allowing or blocking is required (steps 104, 106). If such action is required and it is to allow the transmission, the

system allows the transmission to proceed normally (step 108). If the immediate action is to block the transmission, the system takes action to block the transmission (step 110), and provides a "Blocked" message to the user (step 112).

Ex. 1001, 4:39–55. From this disclosure, Petitioner concludes that "a filter requiring immediate action may specify a port number and/or network address and indicate whether the message should be allowed or blocked." Pet. 16.

Petitioner then argues that claims 3 and 6 recite "the filters specifying immediate action comprise fields specifying an interface port [and] an Internet Protocol (IP) address," and "comparing a domain name in the URL to filtering information in at least one of said filters specifying immediate action," respectively. Applying the doctrine of claim differentiation, Petitioner concludes that "immediate action filters must encompass at least IP addresses, URLs, and domain names as ways of specifying a location of a resource on the Internet." Pet. 16–17.

As to "filters specifying deferred action," Petitioner, relying on examples from the Specification, argues that "[t]he difference between immediate action filters and deferred action filters is that deferred action defines additional pattern-matching or keyword-matching steps beyond just examining the network address." *Id.* at 18–19 (citing Ex. 1001, 5:20–28, 6:10–28). Petitioner acknowledges that the claim language suggests a temporal relationship, but argues that claim 1 would cover comparing the message to a deferred filter without comparing it to an immediate filter, demonstrating that immediate and deferred filters need not be applied in temporal order. *Id.* at 20.

In response, Patent Owner argues that the plain language of the claims distinguishes between the two types of filters on a temporal basis, an aspect of a proper construction Petitioner ignores. Prelim. Resp. 5–6. According to Patent Owner, Petitioner is incorrect to read into the claims *what* the filters compare, as opposed to *when* the filtering occurs. *Id.* at 6–7. Although Patent Owner does not propose an express construction for either term, Patent Owner argues that "the plain language of the claims requires, and the specification supports, differentiating between filters that *allow or block a transmission immediately* via direct action and filters that *defer allowing or blocking a transmission* based on conditions." *Id.* at 6 (emphases added).

In the District Court Litigation, the District Court construed "filters specifying immediate action" and "filters specifying deferred action." Ex. 2001 (Claim Construction Order), 3–7, 22. Although we are not bound by the District Court's constructions, we consider its reasoned analysis, especially because we are applying the *Phillips* standard ordinarily used by district courts. *Cf. Power Integrations, Inc. v. Lee*, 2015 WL 4757642, at *6 (Fed. Cir. Aug. 12, 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 of the term.").

In its analysis, the District Court, considering the Specification, rejected Petitioner's constructions (substantially the same as those proffered in this proceeding), reasoning that "[w]hat distinguishes the filters is whether, once the filters are retrieved, the decision to allow or block the transmission is made immediately and unconditionally or delayed until

additional conditions are satisfied." Ex. 2001, 4 (citing Ex. 1001, 1:41–47, 4:12–20). In the examples cited by the District Court, an interface port or Internet address is compared to both direct action filters¹ and deferred action filters. As the District Court explained, both direct action filters and deferred action filters specify an action (ALLOW or BLOCK) based on a port number or network address specified in the message. *Id.* at 5–6. The difference, as the District Court noted, is the *timing* of any action taken after a filter for a particular port number or network address is retrieved. *Id.* Specifically, direct action filters take action immediately, while deferred action filters wait until a condition is met. Ex. 1001, 6:5–27. Thus, consistent with the reasons given by the District Court, we are persuaded that Petitioner's proposed constructions are not supported by the Specification. In contrast, the temporal requirement proposed by Patent Owner is supported. We note that the temporal requirement of the claims refers to the time between when a filter is retrieved and when action is taken.

¹ The parties appear to agree that direct action filters correspond to filters specifying immediate action. Pet. 15; Prelim. Resp. 5.

Thus, Petitioner's argument (Pet. 20) that a deferred action filter can act without previous action of an immediate action filter is not persuasive.²

On this record, consistent with the District Court's constructions, we construe 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."

Although we apply the standard set forth in *Phillips* because the '033 patent will expire before a final decision issues in this proceeding, we are persuaded nonetheless, on this record, that these constructions also are the broadest reasonable constructions. *See Facebook*, 582 F. App'x at 869 ("The broadest reasonable interpretation of a claim term may be the same as

² We note that the District Court added to each of these constructions a requirement that the filters "operate between the presentation and application levels of the seven-level ISO protocol model," reasoning that such a limitation was appropriate in light of disclaimers made during prosecution. Ex. 2001, 8–9, 22. The District Court further relied on expert testimony and a technology tutorial presented in the District Court Litigation but not introduced in this proceeding. Id. at 9. Although Patent Owner proposed this additional language before the District Court, Patent Owner does not propose it, or support it, in this proceeding. Petitioner argues that such additional language is contradicted by the Specification. Pet. 17–18. On the current record and for purposes of this Decision, we do not include those additional limitations proposed by Patent Owner in our constructions. *Facebook, Inc. v. Pragmatus AV, LLC*, 582 F. App'x 864, 869 (Fed. Cir. 2014) (nonprecedential).

or broader than the construction of a term under the *Phillips* standard. But it cannot be narrower.").

C. Anticipation by Baker '645

Petitioner contends that Baker '645 anticipates claims 1, 2, 9, 15, and 23. Pet. 3.

1. Overview of Baker '645

Baker '645 describes a technique in which a processor coupled to a database queries the database before allowing a terminal to receive content corresponding to a particular URL. Ex. 1002, 4:11–16. The database can store a list of URLs that the terminal has permission to access. *Id.* at 4:16–18. In another example, the database can store a list of ratings for content corresponding to the URLs and a list of categories of ratings that the terminal is allowed to receive. *Id.* at 4:20–23.

2. Status of Baker '645 as Prior Art

Baker '645 was filed after the filing date of the '033 patent, but claims the benefit of Provisional Application No. 60/004,670 (Ex. 1004, "the '670 provisional"), which was filed earlier than the '033 patent. Ex. 1002, [60], 1:6–8. Petitioner contends that Baker '645 is entitled to the filing date of the '670 provisional because it provides support for the disclosure on which Petitioner relies to show anticipation. Pet. 27–28.

To show that Baker '645 is entitled to the benefit of the '670 provisional, it is Petitioner's burden to show that the claims of Baker '645 are supported by the '670 provisional. *See Dynamic Drinkware, LLC v.*

Nat'l Graphics, Inc., 2015 WL 5166366, at *6 (Fed. Cir. Sept. 4, 2015) ("A reference patent is only entitled to claim the benefit of the filing date of its provisional application if the disclosure of the provisional application provides support for the claims in the reference patent in compliance with § 112, ¶ 1... Nowhere, however, does [the petitioner] demonstrate support in the Raymond provisional application for the claims of the Raymond patent. That was [the petitioner's] burden."). While Petitioner purports to map disclosure in the '670 provisional to claims of the '033 patent, it does not show how the disclosure in the '670 provisional supports the claims of Baker '645. Accordingly, Petitioner has not met its burden of showing that Baker '645 is entitled to the benefit of the '670 provisional. *See id.*

We note that the *Dynamic Drinkware* court determined that it was not necessary for the petitioner in that proceeding to prove in its petition that the allegedly anticipatory reference was entitled to the filing date of an earlier provisional application. *Id.* at *5. In *Dynamic Drinkware*, however, the earlier date was not implicated until after the patent owner in that proceeding introduced evidence of earlier conception and reduction to practice. *Id.* at *4. In contrast, in this proceeding, Baker '645, on its face, shows a filing date after that of the '033 patent. As Petitioner recognized (Pet. 21, 27), the evidence of record demonstrates a need to show that Baker '645 is entitled to the filing date of the '670 provisional. Thus, it was necessary for Petitioner to prove this entitlement in the Petition.

Because Petitioner has not shown that Baker '645 is entitled to the filing date of the '670 provisional, Petitioner has not shown that Baker '645 is prior art to the '033 patent. Accordingly, Petitioner has not demonstrated

a reasonable likelihood that it would prevail in showing the unpatentability of any of the challenged claims over Baker '645.

D. Challenges over Baker '898

Petitioner contends that claims 1, 2, and 15 are anticipated by Baker '898 and that claims 9 and 23 would have been obvious over Baker '898, alone or in combination with Baker '645. Pet. 3. As explained in Section II.C.2 above, Petitioner has not shown that Baker '645 is prior art to the '033 patent. Accordingly, our analysis is limited to Petitioner's challenges over Baker '898 alone.

1. Overview of Baker '898

Baker describes a system for allowing a system administrator to restrict system users from accessing information from certain public databases (e.g., websites on the Internet). Ex. 1003, 2:65–3:3. Figure 1, reproduced below, illustrates an example:





Figure 1 is a block diagram of a system for controlling database access. *Id.* at 3:21–22.

Processor 111, in proxy server 112, controls the ability of users at user terminals 107–109 to access network resources 101–105 on public network 100. *Id.* at 3:29–37. User terminals 107–109 submit requests for resources in the form of URLs. *Id.* at 3:38–42. Upon receipt of a URL from a user terminal, processor 111 cross-references the URL with information stored in relational database 114. *Id.* at 3:54–59. Relational database 114 contains a listing of user terminal identification codes and corresponding URLs each user terminal is allowed to access. *Id.* at 3:59–4:1. If the URL requested by a user terminal is on the list of allowable URLs, processor 111 forwards the

request to public network 100 via firewall 113. *Id.* at 4:7–17. If the URL is not on the list, processor 111 denies the request. *Id.* at 4:17–20.

Database 114 also can be configured with resources arranged in a tree structure to facilitate requests formulated as regular expressions. *Id.* at 5:6– 14. For example, "[t]he URL http://ourschool.edu/subject/*answer* specifies any resources within the directory http://ourshcool.edu/subject (or its tree of subdirectories) that contain 'answer' in their names." *Id.* at 5:33– 36.

2. Challenged Claims

Regarding claim 1, Petitioner contends that Baker '898's description of lists of URLs each user terminal is allowed to transmit is a disclosure of "filters specifying immediate action." Pet. 33–34, 36. Petitioner further contends that Baker '898's description of formulating requests as regular expressions discloses "filters specifying deferred action." *Id.* at 34–36.

Patent Owner argues that Petitioner's unpatentability analysis as to Baker '898 (and all of the other challenges) fails because Petitioner's constructions of "filters specifying immediate action" and "filters specifying deferred action" are incorrect. Prelim. Resp. 9. Although we agree with Patent Owner that Petitioner's proposed constructions are incorrect, we nevertheless analyze the arguments and evidence presented by Petitioner under our constructions, discussed above.

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). Claim 1 recites

maintaining a database with a table of filters comprising two types of filters, "filters specifying immediate action" and "filters specifying deferred action." Assuming that we agree with Petitioner's identification of these two types of filters separately in Baker '898, to establish anticipation of claim 1 by Baker '898, the evidence must show that both of these filters (i.e., (1) a stored list of URLs corresponding to each user station and (2) a tree structure that facilitates comparison to regular expressions) are maintained in a table of filters in Baker '898's database 114.

According to Baker '898, relational database 114 can "contain a listing of user terminal identification codes (ID₁₀₇, ID₁₀₈ . . . ID₁₀₉), each of which is associated with one or more URL designations. The relational listing specifies the particular URLs that may be transmitted from a given user terminal to access network resources." Ex. 1003, 3:59-64. This example is shown in box 114 of Figure 1, reproduced above. Baker '898 further explains that "[t]he relational database utilized in systems facilitating the invention could also be configured so that the information indicative of allowable resource access is arranged to conform to resources that are configured in a tree structure format." Id. at 5:6–10. Baker '898, thus, describes these examples as alternative configurations for database 114 rather than two types of information that are stored together in the database. Neither Petitioner nor Dr. Knutson presents persuasive argument or evidence showing that database 114 includes both types of information. See Pet. 32– 38; Ex. 1010 ¶¶ 71–74, 77–80, 82. Thus, Petitioner has not shown persuasive evidence that Baker '898 discloses all of the limitations of claim 1 "arranged or combined in the same way as recited" in claim 1. *Net MoneyIN*, 545 F.3d at 1371.

Petitioner also points to a description, in Baker '898's Background of the Invention, of a prior art method of "filtered" access to websites in which a client or proxy server checks each resource against a list of disallowed words. Pet. 36 (citing Ex. 1003, 2:34–38). Petitioner contends that this is another example of "filters specifying deferred action." *Id.* As Patent Owner argues (Prelim. Resp. 17), however, this disclosure is not part of the embodiment to which Petitioner cites for a showing of "filters specifying immediate action," or any of the other limitations of claim 1. Thus, Petitioner has not shown how an analysis with this alternative example shows all of the limitations "arranged or combined in the same way as recited" in claim 1. *Net MoneyIN*, 545 F.3d at 1371.

Because Petitioner has not shown that Baker '898 discloses each limitation of claim 1 arranged as in claim 1, we are not persuaded that Petitioner demonstrates a reasonable likelihood that it would prevail in showing the unpatentability claim 1 or its dependent (claim 2) as anticipated by Baker '898. Independent claim 15 includes the limitations we find lacking in Baker '898. Accordingly, Petitioner has not demonstrated a reasonable likelihood that it would prevail in showing the unpatentability claim 15 as anticipated by Baker '898.

Claim 9 depends from claim 1 and includes the limitations we find missing from Baker '898. Independent claim 23 also includes the limitations of claim 1 we find lacking in Baker '898. Petitioner contends that claims 9 and 23 would have been obvious over Baker '898. Pet. 38–43. Petitioner, however, does not contend that the limitations we find missing from Baker '898 nevertheless would have been obvious over Baker '898. Accordingly, Petitioner has not demonstrated a reasonable likelihood that it

would prevail in showing the unpatentability claims 9 and 23 as obvious over Baker '898.

E. Challenges over Pitcher

Petitioner contends that Pitcher anticipates claims 1, 2, 15, and 23. Pet. 3. Petitioner further contends that claim 9 would have been obvious over Pitcher, alone or in combination with Baker '645. *Id.* As explained in Section II.C.2 above, Petitioner has not shown that Baker '645 is prior art to the '033 patent. Accordingly, our analysis is limited to Petitioner's contention that claim 9 would have been obvious over Pitcher alone.

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:



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 work stations 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, 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 work station 121. *Id.* at 6:21–26.



2	01	2	02 20	03 20	04 205	206	207	20	08 20	9 210	211	
6		RS	_/	7				/			/	P
040	NAME	SEQ	TYPE	OFFSET	VALUE (HEX)	COND	MATCH	FAIL	FWD	MON DEST	ADDL DEST	
212	FLTR_001	1	LLC	0	AA.AA.03.00.00.00.81.37	EQ	2	255	NORM			
213		-2	LLC	16	04.52	EQ	3	255	NORM			
214		 3	LLC	22	00.07	EQ	0	255	ALT		2:3,2:4	
215	FLTR_002	1	MAC	2	00.80.00.02.31.54	EQ	255	255	NORM	2:1		
216	FLTR_003	1	LLC	0	AA.AA.03.00.00.00.08.00	EQ	0	255	DROP			
21/1						<u> </u>						
	ADD FILTER	AD) SEQ	DELETE	SEQ							
Ľ	/		-									
	220											

200

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 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 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 relies on the testimony of Dr. Knutson in support of this contention. *Id.* (citing Ex. 1010 ¶ 98). 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). Petitioner points to Pitcher's description at column 8, lines 4–32, as showing additional examples of comparisons performed by Pitcher's filters. *Id.* at 48 (citing Ex. 1010 ¶¶ 103–04). According to Petitioner and Dr. Knutson, packets are compared to these filters to determine whether to allow the packet to be transmitted ("NORM") or to prevent the packets from being transmitted ("DROP"). *Id.* at 48–49 (citing Ex. 1010 ¶¶ 105–07). We credit the testimony of Dr. Knutson at this stage in the proceeding.

As discussed above, Patent Owner argues that all of Petitioner's unpatentability challenges fail because Petitioner's constructions of "filters specifying immediate action" and "filters specifying deferred action" are incorrect. Prelim. Resp. 9. Although we agree with Patent Owner that Petitioner's proposed constructions are incorrect, we nevertheless analyze the arguments and evidence presented by Petitioner under our constructions, discussed above. On this record, we are persuaded that Petitioner's evidence shows filters (e.g., FLTR_002) that, once they are retrieved, specify whether to allow or block a transmission immediately and unconditionally and filters (e.g., FLTR_001) that, once they are retrieved, defer the specification of whether to allow or block a transmission until additional conditions are satisfied. Pet. 45–48 (citing Ex. 1010 ¶¶ 99–102).

Regarding independent claim 23, Petitioner contends that its only difference from claim 1 is that its filters operate on incoming messages, rather than outgoing messages. *Id.* at 49–50. Petitioner argues that claim 15 is nearly identical to claim 1, except that it does not specify whether the filtered message is incoming or outgoing. *Id.* at 49. Regarding the directionality of messages in Pitcher, Petitioner points to disclosure in Pitcher that states, *inter alia*, "[s]uch filters may be configured on a per port basis, i.e., a filter can be applied to data packets *entering or exiting* a specific port on a networking device such as a LAN switch." *Id.* at 50 (quoting Ex. 1005, 3:56–59 (emphasis added)).

Regarding claim 2, Petitioner points to disclosure in Pitcher that a filter value of NORM indicates that a packet is to be forwarded and a value of DROP indicates that the packet is to be discarded. *Id.* at 50–51 (citing Ex. 1005, 9:5–19).

Patent Owner raises no other arguments as to Pitcher at this stage in the proceeding.

On this record, we are persuaded that Petitioner demonstrates a reasonable likelihood that it would prevail in showing the unpatentability claims 1, 2, 15, and 23 as anticipated by Pitcher.

3. Claim 9

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." Petitioner cites to disclosure in the Pitcher's Background of the Invention describing a

"common strategy" of segmenting LANs into smaller LANs which, carried to its end, would result in each LAN having only one device attached. Pet. 51 (quoting Ex. 1005, 1:27–34). Petitioner, in reliance on Dr. Knutson's testimony, argues that, when carrying out filtering operations for a single client, a person of ordinary skill in the art would have known that it would be more efficient, and would eliminate unnecessary hardware, to implement the filtering on the client rather than a LAN switch. *Id.* at 51–52 (citing Ex. 1010 ¶¶ 116–18). We credit the testimony of Dr. Knutson at this stage in the proceeding.

Patent Owner raises no other arguments as to Pitcher's applicability to claim 9 in its Preliminary Response.

On this record, we are persuaded that Petitioner demonstrates a reasonable likelihood that it would prevail in showing the unpatentability claim 9 as obvious over Pitcher.

F. Challenges Over Schloss

Petitioner contends that Schloss anticipates or renders obvious claims 1, 2, 9, 15, and 23. Pet. 3.

1. Overview of Schloss

Schloss describes a system for controlling client access to data located on content servers in a distributed data communication system. Ex. 1006, 1:6–9. Figure 2, reproduced below, illustrates an example:



Figure 2 is a block diagram of the World Wide Web, including clients 25 and advisory servers 20 communicating over Internet 8. *Id.* at 3:13–15.

Client 25, running a web browser, requests content from server 6 by sending an HTTP content request. *Id.* at 5:27–29. Ordinarily, client 25 receives the requested content in an HTTP response. *Id.* at 4:30–33. Schloss's system also includes one or more advisory servers 20 that maintain knowledge bases 22 that characterize the content from content servers 6. *Id.* at 4:57–61. When client 25 sends its content request to server 6, it also requests characterization data from advisory server 20. *Id.* at 4:61–66. Client 25 may inhibit loading the content in the response transmitted by server 6 while it waits for characterization data from advisory server 20. *Id.* at 5:29–33. Advisory server 20 generates characterization data that client 25 can use to determine whether to filter the content in the response transmitted by server 6. *Id.* at 4:66–5:5. If the characterization data indicate

that the advisory server has no relevant information about the content data, client 25 loads the data. In contrast, if the advisory server indicates that the content data in the response are, for example, offensive to minors, client 25 may inhibit loading of the content data. *Id.* at 5:59–6:1.

Schloss describes two examples of advisory requests. Each example includes the URL of the requested content (web page) from server 6. *Id.* at 6:33–36. In the first example, client 25 sends the URL content request to advisory server 20 along with an "AdviseOnURL" command, which requests that the characterization data returned by advisory server 20 only pertain to the particular page of content data requested from server 6. *Id.* at 6:16–23. In the second example, client 25 sends the URL along with an "AdviseOnURLIncludingLinks" command, which requests that the characterization data pertain to the particular page requested plus any content linked to the particular page. *Id.* at 6:23–33.

2. Challenged Claims

Claim 1 recites, *inter alia*, "opening a data stream to send *a message* through an interface to an Internet server," "comparing information in *the message* to filtering information," and "determining whether to prevent or allow the outgoing transmission of *the message* based on the comparison" (emphases added). Patent Owner argues that Petitioner does not identify what it alleges is the "message" of claim 1. Prelim. Resp. 21.

For the claim limitation "opening a data stream to send a message through an interface to an Internet server," Petitioner points to Schloss's description of transmitting a URL content request by a client to server 6 and receiving a web page in response. Pet. 56. Petitioner does not identify in its

argument whether the "message" is the URL content request or the response from the server. For the "comparing" and "determining" limitations, Petitioner cites to a passage in Schloss that describes a client loading or inhibiting content received from a server based on characterization data from an advisory sever. Pet. 57–58 (citing Ex. 1006, 5:59–6:6). Petitioner does not identify, in its argument, whether the comparison corresponding to the "comparing" limitation recited in claim 1 is a comparison between the information in the advisory server and the URL content request or a comparison between the information returned by the advisory server and the content received from the server. Thus, Patent Owner's concern is wellfounded.

As Patent Owner notes (Prelim. Resp. 21), Dr. Knutson's testimony sheds some light on Petitioner's position. For example, Dr. Knutson identifies Schloss's disclosure of "requesting web content over TCP/IP sockets" as meeting the "opening a data stream" limitation recited in claim 1, which indicates that Petitioner identifies the original URL content request (sent from client 25 to server 6) as the "message." Ex. 1010 ¶ 126; *see also id.* ¶ 122 ("When a client requests a particular URL, the request is compared to a table of filters to determine whether or not the resource identified by the URL is appropriate for viewing."). Similarly, in comparing Schloss to the "comparing" limitation of claim 1, Dr. Knutson testifies that "the URL in the message requesting content is compared with characterization information retrieved from an advisory server to determine whether to block or allow the request." *Id.* ¶ 132. This testimony also suggests that Petitioner identifies the URL content request from the client to the server as the "message."

Dr. Knutson's testimony, however, is inconsistent with Schloss's disclosure. For example, in evaluating the "comparing" limitation, Dr. Knutson identifies the information returned by the advisory server as the recited "filtering information" and argues that Schloss discloses comparing the URL in the message requesting content (the outgoing URL request) to this filtering information received from an advisory server to determine whether to allow or block the request (again, the original outgoing URL request). In the passage cited by Petitioner (Ex. 1006, 5:59–6:6), however, Schloss compares the information received from an advisory server (what Dr. Knutson identifies as the "filtering information") to the web page returned by the web server (which the client has received but has not yet loaded). Moreover, to the extent Petitioner contends that the web page received is the "message," that is not the same message identified for the "opening a data stream" limitation received in claim 1.

In further testimony comparing Schloss to the "determining" limitation of claim 1, Dr. Knutson testifies that "based on the comparison of the requested URL to URLs in the filter list having associated characterization data, the system can prevent or allow the transmission requesting that resource." Ex. 1010 ¶ 133. Here, Dr. Knutson again appears to identify the original outgoing URL content request as the "message." Dr. Knutson's testimony again is not supported by Schloss's disclosure. In the passage of Schloss cited by Dr. Knutson, Schloss describes that "the client may inhibit loading of or load the content data associated [with] the [content] request as a function of the received characterization data." Ex. 1006, 5:60–62. This passage describes determining whether to load the content received from server 6 after server 6 has received the original

outgoing URL request and replied. As Patent Owner argues (Prelim. Resp. 22), Schloss does not determine whether to prevent or allow outgoing transmission of a URL content request. Rather, in the citations provided by Petitioner, Schloss describes sending the content request, receiving content data in response, and determining whether to load the received data.

In sum, after considering the evidence in the Petition and Dr. Knutson's testimony, we are not persuaded that Petitioner's evidence supports a finding that Schloss discloses "determining whether to prevent or allow the outgoing transmission of the message based on the comparison," as recited in claim 1. Because Dr. Knutson's testimony regarding Schloss is contradicted by the reference itself in multiple instances, we assign his testimony little weight.

Claims 2 and 9 depend from claim 1. Petitioner's evidence as to claims 2 and 9 is deficient for the same reasons.

Regarding claims 15 and 23, Petitioner does not provide separate detailed analysis, either in the Petition or through Dr. Knutson's testimony. Rather, Petitioner contends that Schloss "anticipates Claims 15 and 23 for the same reasons it anticipates Claim 1" and adds a contention that Schloss discloses applying filters to data returned from an Internet server, arguing that it describes using "AdviseOnURLIncludingLinks" filters to examine content returned by an Internet server. Pet. 60. Even if this is true, however, Petitioner does not identify what it considers the "message" of either claim 15 or claim 23 or explain how Schloss applies to the "comparing" and "determining" steps of claims 15 and 23. Thus, we are not persuaded that Petitioner's evidence supports a finding that Schloss anticipates claims 15 and 23.

Although Petitioner presents its challenge as one of anticipation or obviousness, Petitioner does not present any separate argument or evidence that independent claims 1, 15, and 23 would have been obvious over Schloss. Petitioner's only discussion of obviousness over Schloss is in the context of claim 9 and, in that case, only deals with placement of the filtering in the client. Pet. 59. Petitioner's obviousness argument does not address the limitations of claims 1, 15, and 23 that its anticipation evidence fails to support.

Consequently, we are not persuaded that Petitioner demonstrates a reasonable likelihood that it would prevail in showing the unpatentability of any of the challenged claims over Schloss.

III. CONCLUSION

We institute an *inter partes* review of claims 1, 2, 9, 15, and 23. We have not yet made a final determination of the patentability of these claims or the construction of any claim term.

IV. ORDER

For the reasons given, it is:

ORDERED that *inter partes* review is instituted on the following grounds:

(1) Claims 1, 2, 15, and 23, under 35 U.S.C. § 102(e), as anticipated by Pitcher; and

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

FURTHER ORDERED that the trial is limited to the grounds identified above, and no other ground is authorized; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of U.S. Patent No. 5,884,033 is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

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