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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JEFFERY BART JENNINGS and KOFI KEKESSIE

Appeal 2018-006428
Application 15/186,490
Technology Center 2400

Before ST. JOHN COURTENAY III, DENISE M. POTHIER, and
JENNIFER S. BISK *Administrative Patent Judges*.

BISK, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a) Appellant¹ appeals from the
Examiner's decision to reject claims 1, 2, 6–8, 12–15, 19, and 20, which are

¹ We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as LENOVO ENTERPRISE SOLUTIONS (SINGAPORE) PTE. LTD. Appeal Br. 2.

all claims pending in the application. Claims 3–5, 9–11, and 16–18 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

BACKGROUND²

Appellant’s disclosed embodiments and claimed invention relate to “allow[ing] client computers to communicate with servers via a firewall in which the firewall does not need to have certain ports allowed by default, i.e. the firewall blocks all incoming traffic regardless of port number” using “a multilayered authentication technique.” Spec. ¶¶ 5–6. Claim 1, reproduced below, is illustrative of the subject matter on appeal:

1. A system for authenticating a communication request sent from a client computing device, the system comprising:
 - a firewall that initially blocks all incoming traffic regardless of port number, the firewall comprising:
 - a central processing unit (CPU) performing functions based upon program code instructions including:
 - initially block the communication request;
 - and,
 - create a first logging event corresponding to the communication request; and
 - a storage unit, the storage unit storing the communication request and the first logging event;
 - and

² Throughout this Decision we have considered the Specification filed June 19, 2016 (“Spec.”), the Final Rejection mailed September 7, 2017 (“Final Act.”), the Appeal Brief filed February 7, 2018 (“Appeal Br.”), the Examiner’s Answer mailed April 3, 2018 (“Ans.”), and the Reply Brief filed June 4, 2018 (“Reply Br.”)

a server in data communication with the firewall, the server having a processing unit, the processing unit operating to perform functions including:

receiving notification for the first logging event created by the firewall;

responding to the notification by locating in the storage unit the communication request based upon the first logging event in the notification;

authenticating in the server the communication request corresponding to the first logging event using a multi-layer authentication process including a first layer authentication of the communication request and a second layer authentication of the communication request; and

enabling by the server a port in the firewall if the communication request is authenticated by the first and second layer authentications.

Appeal Br. 14–15 (Claims App.).

REJECTIONS

Claims 1, 2, 6–8, 12–15, 19, and 20 stand rejected for nonstatutory obviousness-type double patenting as being unpatentable over claims 1–11 of U.S. Patent No. 9,374,339 B2. Final Act. 8.

Claims 1 and 6 stand rejected under 35 U.S.C. § 112 paragraph 2 as being indefinite. Final Act. 6–7.

Claims 1, 7, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of U.S. Patent No. 7,380,123 B1, issued May 27, 2008 (“Hernacki”), Marin Krzywinski, *Port Knocking — Network Authentication Across Closed Ports*, SYS ADMIN 12 (2003) (“Krzywinski”), and U.S. Patent No. 7,640,581 B1, issued Dec. 29, 2009 (“Brenton”). Final Act. 9–13.

Claims 2, 6, 8, 12, 15, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hernacki, Krzywinski, Brenton, and U.S. Patent Application Publication No. 2005/0213582 A1, published Sept. 29, 2005 (“Wakumoto”). Final Act. 13–15.

Claims 13³ and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hernacki, Krzywinski, Brenton, Wakumoto, and U.S. Patent Application Publication No. 2004/0190715 A1, published Sept. 30, 2004 (“Nimura”). Final Act. 16–17.

ANALYSIS

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv).

We have considered all of Appellant’s arguments and any evidence presented. We highlight and address specific findings and arguments for emphasis in our analysis below.

Nonstatutory Obviousness-Type Double Patenting

The Examiner rejects claims 1 and 6 on the ground of non-statutory obviousness-type double patenting over claims 1–11 of U.S. Patent No. 9,374,339 B2 (“the ’339 patent”). Final Act. 8.

³ Claim 13 depends from canceled claim 10. Appeal Br. 17 (Claims App.).

Appellant does not address this rejection in its briefs. *See* Appeal Br.; Reply Br. Notably, Appellant filed at least one terminal disclaimer regarding the '339 patent. *See* Electronic Terminal Disclaimer-Filed (filed Sept. 5, 2017); Electronic Terminal Disclaimer-Filed (filed Dec. 8, 2017). Moreover, at least one of the terminal disclaimers was “automatically approved by EFS-Web.” *See* Electronic Terminal Disclaimer-Approved (mailed Sept. 5, 2017); Electronic Terminal Disclaimer-Approved (mailed Dec. 8, 2019).

Accordingly, we do not reach the merits of this rejection, and leave to the Examiner initial consideration of whether any of the Terminal Disclaimers overcome the presented double patenting rejection.

Rejection of Claims 1, 2, 6–8, 12–15, 19, and 20 Under 35 U.S.C. § 112(b)

For purposes of the indefiniteness rejection, Appellant argues claims 1 and 6 together. Appeal Br. 5–8; Reply Br. 2–4. As permitted by 37 C.F.R. § 41.37, we decide the Appeal for the rejection of all rejected claims based on claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner rejects claims 1 and 6 as being indefinite because it “calls for ‘*a system*’ reciting ‘a central processing unit (CPU) *performing*,’” and “‘the storage unit *storing*.’” Final Act. 6; Ans. 2–3. According to the Examiner, “[s]uch claims are construed as recit[ing] both a device and a method for using that device” and does “not apprise a person of ordinary skill in the art of their scope.” Final Act. at 6–7 (citing *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005)). The Examiner suggests that the limitations be amended to “‘a central processing unit (CPU) *for performing*,’” and “‘the storage unit *for storing*.’” *Id.*

Appellant argues that instead of reciting both a device and a method

for using that device, claims 1 and 6 recite “a firewall, a CPU, a storage unit and a server,” where the “CPU is further defined in terms of its functionality—that it includes program code instructions that perform a set of enumerated program steps.” Appeal Br. 6; Reply Br. 3. Further, Appellant argues that *IPXL* is not applicable to claims 1 and 6. Appeal Br. 6–7 (citing *HTC Corp. v. IPCom GmbH & Co.*, 667 F.3d 1270 (Fed. Cir. 2012)); Reply Br. 3–4 (citing *UltimatePointer, L.L.C. v. Nintendo Co.*, 816 F.3d 816 (Fed. Cir. 2016)).

We agree with the Examiner that an amendment to the claims at issue would add clarity to the covered subject matter.⁴ However, we agree with Appellant that the claims here are more like those in *Ultimate Pointer* than those in *IXPL* in that they reflect the capability of the claimed apparatus. Unlike *IXPL*, “the claims do not recite functionality divorced from the cited structure.” *Ultimate Pointer*, 816 F.3d at 827–28. The language of claim 1 suggests that the “performing functions based upon program code instruction” and “storing the communication request and the first logging event” clauses reflect the capability of, and are specifically tied to, the CPU and the storage unit rather than activities of a user. *Id.*; see also *MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1316–17 (Fed. Cir. 2017) (holding not indefinite a claim reciting “active verbs—presents, receives, and generates” because “these verbs represent permissible functional language used to describe capabilities of the ‘reporting module’,” “do not

⁴ We note that all the Federal Circuit cases discussed in the briefs involve district court cases of issued patents. In those cases, as opposed to the situation here, the claims could not be amended.

claim activities performed by the user,” and “do[] not appear in isolation, but rather, [are] specifically tied to structure.”).

Accordingly, we do not sustain the Examiner’s rejection of claims 1 and 6 as indefinite.

Rejection of Claims 1, 2, 6–8, 12–15, 19, and 20 under 35 U.S.C. § 103

For purposes of the obviousness rejections, Appellant argues all the rejected claims together. Appeal Br. 8–13; Reply Br. 4–7. As permitted by 37 C.F.R. § 41.37, we decide the Appeal for the rejection of all rejected claims based on claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Appellant argues that Hernacki does not teach or suggest “enabling by the server a port in the firewall if the communication request is authenticated by the first and second layer authentications.” Appeal Br. 9–10. According to Appellant, Hernacki refers “to the receipt of a trigger on a host and the authenticating of the trigger . . . to which a service channel on the host is opened and a connection [is] enabled,” but “does not account for the claimed ‘enabling by the server [of] a port in the firewall if the communication request is authenticated by the first and second layer authentications [of the server]” (“the enabling limitation”). *Id.* at 10. Instead, Appellant explains that the “Examiner appears to only have mapped the enabling of a port by a server without regard to the location of the port.” *Id.* at 12.

In response, the Examiner points out that the rejection relies on a combination of references for the enabling limitation—Hernacki for the initial portion of the enabling limitation, including “enabling by the server a port in the firewall if the communication request is authenticated” and Brenton for a multi-layer authentication process, including “the first and second layer authentications.” Ans. 4–8. In addition, the Examiner adds to

the portions of Hernacki that it relies on for the initial portion of the enabling limitation. Ans. 5–6. In particular, the Examiner points out that Hernacki discloses ports shared between Host 301 and Firewall 304 and stealth listener 303, which belongs to Firewall 304, and monitors a port on Host 301 intercepting packets before they reach the Host 301. *Id.* at 5 (“**Fig. 1, Firewall 104 is connected to host 102; [F]igs. 3A-3B Firewall 304 is connected to Host 301, these ports are shared between Host 301 and Firewall 304; Col. 8, lines 4, line 21.**”).

Appellant replies that the Examiner did not address the Appeal Brief arguments and reiterates that Hernacki does not teach or suggest the first portion of the enabling limitation. Reply Br. 4–7.

We are not persuaded of error in the Examiner’s determination that Hernacki teaches or suggests the initial portion of the enabling limitation—“enabling by the server a port in the firewall if the communication request is authenticated.” Hernacki teaches stealth listener 303 is included in Firewall 304, which is connected to Host 301. Hernacki, Figs. 3A–C, 6:47–49 (“In this example, a host 301 is shown to use a firewall 304 to communicate with authenticated remote clients 306 and 308” and “triggers 306, 308 are intercepted first at firewall 304 that includes stealth listener 303.”), 8:13–15 (“In this example, stealth listener 303 can be implemented in firewall 304 (FIG. 3).”). Moreover, Hernacki teaches that “in response to a properly authenticated trigger, host 301 can enable a network service.” *Id.* at 7:2–5. Specifically, “[u]pon receipt of the valid trigger, the stealth listener opened port 80 for establishing a connection.” *Id.* at 7:52–53. Based on this disclosure, we agree with the Examiner that Hernacki teaches or suggests “enabling by the server [Host 301] a port [for example, port 80] in the

firewall [Firewall 304 including stealth listener 303] if the communication request [trigger] is authenticated.” We also agree with the Examiner that the combination of Hernacki and Brenton teaches or suggests claim 1’s entire enabling limitation.

Accordingly, we sustain the Examiner’s rejection of claim 1 as obvious over the combination of Hernacki, Krzywinski, and Brenton. We also sustain the rejection of claims 7 and 14, which are not argued separately (*see* Appeal Br. 8–12), as obvious over the combination of Hernacki, Krzywinski, and Brenton. Finally, because the dependent claims are also not argued separately (*see* Appeal Br. 12–13), we sustain the rejection of claims 2, 6, 8, 12, 15, and 19 over Hernacki, Krzywinski, Brenton, and Wakumoto and claims 13 and 20 over Hernacki, Krzywinski, Brenton, Wakumoto, and Nimura.

CONCLUSION

We do not reach the Examiner’s decision rejecting claims 1, 2, 6–8, 12–15, 19, and 20 for nonstatutory obviousness-type double patenting.

We reverse the Examiner’s rejection of claims 1 and 6 under 35 U.S.C. § 112(b).

We affirm the Examiner’s rejection of claims 1, 7, and 14 under 35 U.S.C. § 103 as obvious over the combined teachings of Hernacki, Krzywinski, and Brenton.

We affirm the Examiner’s rejection of claims 2, 6, 8, 12, 15, and 19 under 35 U.S.C. § 103 as obvious over the combined teachings of Hernacki, Krzywinski, Brenton, and Wakumoto.

We affirm the Examiner’s rejection of claims 13 and 20 under

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35 U.S.C. § 103 as obvious over the combined teachings of Hernacki, Krzywinski, Brenton, and Nimura.

DECISION SUMMARY

Claims Rejected	Basis	Affirmed	Reversed
1 and 6	§ 112(b)		1 and 6
1, 7, and 14	§ 103 over Hernacki, Krzywinski, and Brenton	1, 7, and 14	
2, 6, 8, 12, 15, and 19	§ 103 over Hernacki, Krzywinski, Brenton, and Wakumoto	2, 6, 8, 12, 15, and 19	
13 and 20	§ 103 over Hernacki, Krzywinski, Brenton, Wakumoto, and Nimura	13 and 20	
Overall Outcome		1, 2, 6–8, 12–15, 19, and 20	

FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED