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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Requester,

v.

VIRNETX INC.,
Patent Owner.

Appeal 2016-004466
Reexamination Control 95/001,789
Patent 7,921,211 B2
Technology Center 3900

Before STEPHEN C. SIU, DENISE M. POTHIER, and
JEREMY J. CURCURI, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*

DECISION ON REQUEST FOR REHEARING

In papers filed October 12, 2016, VirnetX Inc. (“Patent Owner”) and Apple, Inc. (“Requester”) each requests a rehearing responsive to the September 12, 2016 Decision on Appeal (“Decision”).

Patent Owner’s Request for Rehearing

Claims 5, 23, and 47

Patent Owner argues that “the Board . . . entered a new ground of rejection but did not indicate as much.” Request for Rehearing, filed October 12, 2016 (“PO Req. Reh’g.”) 2.

Patent Owner previously argued that Provino¹ discloses “authorizing” a query but fails to disclose “authenticating” a query, as recited in claim 5, arguing that the term “authorizing” (which Patent Owner asserted to mean “that the user has *permission* to access”) is distinct from the term “authenticating” (which Patent Owner asserted to mean “verify[ing] the *identity* of a user”). *See e.g.*, Patent Owner’s Appeal Brief, filed August 25, 2014 (“PO App. Br.”) 40.

The Examiner previously stated that the Specification failed to provide “a particular meaning” of the disputed terms and disagreed with Patent Owner’s position that “one of ordinary skill in the art of Internet communications” would understand the disputed terms to “precisely differ.” The Examiner also noted that “[e]ven assuming the owner’s definitions to be true, Provino’s authorization ‘verifies that the identity of the user has permission to access requested resources,’ and thus authenticates the user (‘verifies the identity of a user’).” Right of Appeal Notice, dated May 23, 2014 (“RAN”) 44. In other words, the Examiner found an insubstantial

¹ US 6,557,037 B1, issued April 29, 2003 (“Provino”).

distinction between the terms “authorizing” and “authenticating,” even assuming Patent Owner’s proposed definitions of the terms were to be adopted, because, at least, “verif[ying] that the identity of a user” results in determining that “the user has permission to access.”

In the Decision, we agreed with the Examiner and reiterated the Examiner’s position that, even assuming that Patent Owner’s proposed definitions of the terms were to be adopted, a system that determines “permission to access” would also “verify the individual’s ‘identity’.” Decision 16.

Patent Owner now argues that our position regarding the distinction between the terms “authenticate” and “authorize” is a “new finding” because the “rationale” articulated in the Decision supposedly “is substantially different from that advanced by the Examiner” and that “the Board does not align with any arguments offered by the Examiner (RAN at 44).” PO Req. Reh’g. 4.

We disagree with Patent Owner’s assertions. As indicated above, the Examiner found that Patent Owner’s proposed definitions of the terms “authenticate” and “authorize” were not mutually exclusive. We agreed with and essentially reiterated the Examiner’s position. Hence, our rationale with respect to this issue was not “substantially different” from that of the Examiner’s. On the contrary, our rationale was, in fact, identical to that of the Examiner’s.

Patent Owner also argues that “the Board made an entirely new finding stating that the query to *name server 17* is authenticated instead of the query to name server 32” and that “[t]o support its reasoning, the Board

cites to a portion of *Provino* (8:43-51, 8:55-56) that was never relied upon by Requester or Examiner. (*Id.*; RAN at 44-45).” PO Req. Reh’g. 5.

Requester initially argued that *Provino* discloses the disputed feature of claim 5. Request for Inter Partes Reexamination Under 35 U.S.C. § 311, filed October 18, 2011 (“Orig. Req.”) 124. In particular, Requester indicated that *Provino* discloses “device 12(m) . . . generates a message packet for transfer . . . to the firewall 30” and that “[i]f the device 12(m) is authorized to access” a server, then “firewall 30 may provide the device 12(m) with” information to be used in establishing a communication. Orig. Req. 124 (citing *Provino* 9:46–60, 9:56 – 10:12).

The Examiner determined that “*Provino* . . . teaches that name server 17 receives [a] DNS request (query by domain name) from device 12(m) (initiator) and responds by providing the corresponding Internet address” and that “[t]he firewall 30 is also part of the [claimed] DNS system.” RAN 39 (citing *Provino* 7:36–41; 9:46–57; 10:63–67; 12:37–61; 14:1–38). The Examiner further stated that “each query is part of the same sequence that results in establishment of the secure connection” and that “*Provino* teaches that . . . firewall 30 . . . authorizes device 12(m).” RAN 45 (citing *Provino* 9:17–27, 56–67; 12:56–59; 13:8–15). In other words, the Examiner determined that *Provino* discloses a “DNS system” (that includes, at least, name server 17 and firewall 30) and that at least a part of the “DNS system” of *Provino* is disclosed as authenticating the query.

Patent Owner argued that the “name server 17” of *Provino* (like the “VPN name server 32” of *Provino*, according to Patent Owner) “is a conventional DNS server of the type disclaimed in the ’211 patent.” PO

App. Br. 39. We understood Patent Owner’s argument to be that the “name server 17” of Provino is not disclosed as authenticating the query because “name server 17” “is a conventional DNS server of the type disclaimed in the ’211 patent.” *Id.* In response to this presumed argument, we explained in the Decision that “Provino discloses a query for a network address (to name server 17) that is authenticated.” Decision 17. We also explained that we were not persuaded by Patent Owner’s argument regarding the unclaimed feature of “non-conventional.” Decision 6–11.

Patent Owner now argues that our explanation of “name server 17” of Provino constitutes “an entirely new finding.” PO Req. Reh’g. 5. As a point of clarification, we agree with the Examiner and Requester that “firewall 30” (as part of a “DNS system”) authenticates the query at least for reasons set forth by the Examiner and Requester. Our explanation regarding “name server 17” and any findings in that regard merely elaborated on the Examiner’s previous finding that the “DNS system” of Provino included, at least, both “firewall 30” *and* “name server 17” and Patent Owner’s argument pertaining to the “conventionality/non-conventionality” of “name server 17” of Provino. RAN 39. To the extent that we misapprehended Patent Owner’s argument such that Patent Owner, in fact, never argued that Provino’s “name server 17” authenticates (or does not authenticate) the query (and, therefore, concedes that “name server 17” authenticates the query), we withdraw our statements regarding “name server 17” in this regard, such an argument never having been made by Patent Owner and, therefore, the issue being considered to have been waived as never having been raised.

Claims 24 and 48

Requester previously argued that Provino discloses the features recited in claims 24 and 48. *See, e.g.*, Orig. Req. 129, 141. The Examiner agreed with Requester “based on arguments addressed above [regarding a different reference, Solana].” RAN 49. Specifically, the Examiner stated that

[i]f it is now the patent owner’s position that the functional relationship between domain name and the DNS provides the indication rather than the name itself, then the claim permits the domain name, via the functions of domain name lookup and the resulting provision of a certificate, to provide an indication that the DNS supports establishing a secure communication link. As discussed, [Provino] teaches such a system.

RAN 35.

In response, Patent Owner argued that “the Examiner must give the features of claims 24 and 48 their full patentable weight because claims 24 and 48 describe a functional relationship between the ‘at least one of the plurality of domain names’ and the ‘domain name service system.’” PO App. Br. 42. Notably, however, the Examiner explains that Provino, similar to Solana as earlier explained, discloses the disputed claim features even if “patent owner’s position that the functional relationship” is correct (i.e., the features of the disputed claims are given their full patentable weight). *See* RAN 35, 49. Therefore, because Patent Owner is merely arguing that the Examiner must give claim terms patentable weight, the Examiner’s finding pertaining to claims 24 and 48 with claim terms given patentable weight renders Patent Owner’s argument moot.

In the Decision, we stated that “[w]e are not persuaded by Patent Owner’s argument that Provino fails to disclose a ‘plurality of domain names’” and proceeded to explain how Provino discloses this feature. Decision 19. In fact, in the Appeal Brief, Patent Owner only argued that the Examiner should give all claim terms patentable weight but never argued that Provino fails to disclose a plurality of domain names as we previously stated in the Decision. As stated above, Patent Owner’s argument was rendered moot by the Examiner’s analysis of claims 24 and 48, the Examiner having given patentable weight to each claim limitation. Nor does our explanation change the thrust of the rejection for claims 24 and 48 given that we also gave each limitation patentable weight.

Therefore, we grant Patent Owner’s request only to the extent that we withdraw our discussion as to whether or not Provino discloses a plurality of domain names as this argument was not presented in Patent Owner’s brief and is therefore waived by Patent Owner. However, we deny Patent Owner’s request for rehearing with respect to making any changes concerning the disposition of the claims.

With respect to Patent Owner’s actual argument regarding claims 24 and 48 (i.e., that “the Examiner must give the features of claims 24 and 48 their full patentable weight” (PO App. Br. 42)), we agree with Patent Owner. However, as the Examiner stated in the Right of Appeal Notice (reproduced above), even if a “functional relationship” exists (i.e., all features are given “their full patentable weight,” as Patent Owner argues), Provino still discloses the recited claim limitations. We agree with the Examiner for reasons of record at least because, according to Patent Owner, the

Examiner's finding was not challenged by Patent Owner. *See also* Orig. Req. 129, 141.

Requester's Request for Rehearing

Requester argues that we misapprehended or overlooked arguments presented by Patent Owner regarding secondary considerations. Respondent's Request for Rehearing Pursuant to 37 C.F.R. § 41.79 ("3PR Req. Reh'g.") 2. We agree with Requester that we overlooked Patent Owner's arguments regarding secondary considerations but we also agree with Patent Owner that Requester's request for rehearing is improper at least because, as Patent Owner states, a proper request for rehearing must not contain "arguments not raised in the briefs." 37 C.F.R. §41.79(b)(1). *See* Patent Owner's Response to Requester's Request for Rehearing, filed November 14, 2016 1–3. Therefore, Requester's Request for Rehearing is denied.

In any event, for the sake of completeness, we supplement our previous Decision as follows:

Secondary Considerations

Patent Owner argues it would not have been obvious to one of ordinary skill in the art to have combined the teachings of any of the cited references because there was a "long-felt need, failure of others, skepticism, commercial success, and praise and acceptance by others in the field." PO App. Br. 68.

Long Felt Need

Patent Owner argues that "[p]rior to the claimed inventions . . . it was widely recognized that providing secure remote access to a LAN or WAN

was extremely difficult for IT support desks” and that the claimed invention “combine[s] both the ease of use *and* the security aspects of a [VPN], without sacrificing one or the other . . . by providing a domain name service . . . for establishing a secure communication link.” PO App. Br. 68 (citing Declaration of Dr. Robert Dunham Short III, dated March 29, 2012 (“Short Decl.”) ¶¶ 8, 9, 11, PO App. Br., Evidence App’x, Ex. B–4 1–2).

Patent Owner alleges only one claim feature for which those of skill in the art supposedly had a long felt need. That alleged feature is supposedly providing secure communications. This feature is recited in claim 1. The Examiner rejects claim 1 as anticipated by Provino. Secondary considerations are inapplicable with respect to a finding of anticipation.

In any event, even assuming that secondary considerations are somehow relevant to patentability of claim 1 (that recites secure communications) and based on the evidence of record, we are not persuaded by Patent Owner’s argument that “it was widely recognized that providing secure remote access . . . was extremely difficult.” *Id.* Rather, Patent Owner’s evidence indicates that “[r]emote access . . . [is] insecure and unreliable” but that “[y]ou can solve the security problem using client-to-LAN virtual private network (VPN) technology.” PO App. Br., Evidence App’x, Ex. B–4 at 1, *cited in* Short Decl. ¶ 8. Hence, rather than being “extremely difficult” to provide secure remote access, as Patent Owner alleges, Patent Owner’s declarant (Dr. Short) points out that, in fact, it was known in the art that any security problems associated with remote access could be solved. Hence, solutions were known in the art that provided secure remote access. On this record, however, Patent Owner fails to

demonstrate with specific and credible evidence that such solutions were “extremely difficult” to implement (*see e.g.*, PO App. Br., Evidence App’x, Ex. B–4 at 1) prior to the filing of the ’211 patent.

Also, Patent Owner argues that there was a long felt need to combine both the ease of use *and* the security aspects of a VPN by automatically initiating an encrypted channel between a client and a secure server. PO App. Br. 68. As discussed above, Provino predates the filing of the ’211 patent and also discloses this feature. Patent Owner does not explain how the claimed invention satisfies this alleged “long felt need” of providing secure remote access when Provino, at least, already provided for secure remote access.

Patent Owner also argues that “the Defense Advanced Research Projects Agency (‘DARPA’) funded various research programs to further the science and technology of information assurance and survivability” and that “SAIC . . . also spent significant resources [of its own] on their development [of “cutting edge technology”].” PO App. Br. 69. Patent Owner does not explain sufficiently how the amount of resources spent by either “DARPA” or “SAIC” for various research programs to further “information assurance and survivability” or “cutting edge technology” demonstrates a long felt need for the claimed invention. We are not persuaded by Patent Owner’s argument.

Failure of Others

Patent Owner argues that “‘Dynamic Coalitions,’ was specifically created to address the ability of the Department of Defense to quickly and easily set up secure communications over the Internet” but that “none of [the

organizations operating under “Dynamic Coalitions”] came up with a solution . . . that was even close to providing the ease of use of the solutions provided in the claimed inventions of the ’211 patent” and that Dynamic Coalitions “did not develop a solution that allowed a user to . . . enable secure communications.” PO App. Br. 70 (citing Short Decl. ¶¶ 4, 5, 10, 11, PO App. Br., Evidence App’x, Ex. B–4 at 1–2, Ex. B–3 at 1–4).

The sole feature that Patent Owner alleges was supposedly unattainable by “Defense Coalitions” is setting up secure communications. This feature is recited in claim 1. The Examiner rejects claim 1 as anticipated by Provino. Secondary considerations are inapplicable with respect to a finding of anticipation.

In any event, even assuming that secondary considerations are somehow relevant in this matter, we are cautioned by the Federal Circuit that, with respect to secondary considerations alleged by Patent Owner in response to a prima facie showing of obviousness, “the obviousness inquiry centers on whether ‘the claimed invention as a whole’ would have been obvious.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1330 (Fed. Cir. 2016) (citation omitted). Looking at the “claimed invention as a whole” (and, as noted above, ignoring the fact secondary considerations are not applicable to findings of anticipation), we note that claim 1, for example, recites a system for providing a domain name service for establishing a secure communication link, the system comprising a domain name service system configured to be connected to a communication network, to store a plurality of domain names and corresponding network addresses, to receive a query

for a network address, and to comprise an indication that the domain name service system supports establishing a secure communication link.

Again, assuming that secondary considerations are somehow relevant to a claim held to be anticipated over a prior art reference (i.e., Provino), as previously discussed in the record, Provino discloses these features, either taken separately or as a “whole.” Patent Owner does not indicate a portion of the “whole” of the claimed invention that Provino supposedly does not disclose. Not having identified sufficiently a part of the “whole” of the claimed invention that Provino does not disclose, we conclude that Provino, taken individually, discloses the “whole” of the claimed invention. Therefore, Patent Owner fails to show a nexus to its evidence of secondary considerations.

While Patent Owner argues that DARPA-sponsored entities were supposedly unable to provide “a solution that allowed a user to easily and conveniently enable secure communications” (PO App. Br. 70 (citing Short Decl. ¶ 5; PO App. Br., Evidence App’x, Ex. B–3 at 1–4)), Patent Owner does not demonstrate persuasively and with credible evidence that Provino, for example, was also unable to provide such a “solution.” As previously discussed, Provino succeeded in providing such solutions.

Skepticism

Patent Owner argues that “a DARPA program manager informed one of the co[-]inventors that technology disclosed in the ’211 patent would never be adopted” and that “IT offices of many large companies and institutions expressed skepticism that secure connections could ever be enabled easily by regular computer users” because secure connections

“could only be achieved through difficult-to-provision VPNs and . . . easy-to-set-up connections could not be secure.” PO App. Br. 70 (citing Short Decl. ¶¶ 13, 15). We are not persuaded by Patent Owner’s argument.

Patent Owner alleges only one claim feature for which at least one skilled artisan supposedly expressed skepticism. That alleged feature is supposedly providing a “secure connection” for use by “computer users.” This feature is recited in claim 1. The Examiner finds claim 1 to be anticipated by Provino. Secondary considerations are inapplicable with respect to a finding of anticipation.

In any event, even assuming that secondary considerations are somehow relevant to a claim found to be anticipated by a prior art reference, we are directed by the Federal Circuit to consider the “*claimed* invention as a whole,” when considering secondary considerations raised in response to a *prima facie* showing of unpatentability. Patent Owner does not indicate that the DARPA program manager in question informed the co-inventor that technology *claimed* in the ’211 patent would never be adopted.

Further, even assuming that the manager’s comment concerns the *claimed* invention, we are not persuaded by Patent Owner’s argument because citing one person’s opinion as to whether the claimed invention would be adopted does not constitute general skepticism in the industry. For example, Patent Owner does not list any credible publications on this point or indicate that any studies were performed over a statistically significant proportion of those skilled in the art that would indicate that there was, in fact, a general feeling of skepticism in the field that secure communications could be accomplished.

In any event, we note that not only does the record show that Provino already solved the problem of providing secure remote access, as previously discussed, but that Patent Owner's evidence also indicates that the problem of providing secure remote access was already solved. *See, e.g.*, PO App. Br., Evidence App'x, Ex. B-4 at 1, *cited in* Short Decl. ¶ 8 ("But fear not: You can solve the security problem"). It is unlikely that those of skill in the art would have been skeptical that secure remote access, for example, could be achieved, given the fact that secure remote access was already being accomplished by ordinarily skilled artisans.

Commercial Success

Patent Owner argues that "the claimed inventions have experienced commercial success, with multiple companies licensing the technology." PO App. Br. 70. Patent Owner does not allege any specific feature of the claimed invention from which the alleged commercial success was supposedly achieved. To the extent that Patent Owner argues that providing secure communications (also the alleged "long felt need," source of industry "skepticism," and the sole feature that others in the industry attempted but nevertheless faced "failure," according to Patent Owner) is the alleged source of the supposed "commercial success," that feature is recited in claim 1. The Examiner finds claim 1 to be anticipated by Provino. Secondary considerations are inapplicable with respect to anticipation of a claimed invention.

In any event, even assuming that secondary considerations are somehow relevant with respect to anticipation, Patent Owner does not provide any data regarding market share or revenue from sales of any

products alleged to be encompassed by the claimed invention. Rather, Patent Owner argues commercial success based solely on the alleged fact that various business entities entered into licenses with Patent Owner. *Id.* Even assuming that the cited business entities entered into licenses with Patent Owner, this allegation alone would be insufficient to demonstrate commercial success at least because Patent Owner provides insufficient evidence suggesting that the reason any of the business entities entered into licenses with Patent Owner was due to the merits of any claim at issue here, as opposed to any number of other reasons (e.g., expediency, advertising, or avoiding a lawsuit).

Even assuming that the cited business entities entered into licensing for the sole reason that Patent Owner's claimed invention was a "commercial success," we are still not persuaded by Patent Owner's argument. To the extent that "commercial success," as well as a nexus between the assumed "commercial success" to the claimed invention is "presumed" based on the mere allegation (without evidence) that "commercial success" exists (and also assuming that there is, in fact, a specific product and that the specific product is the invention disclosed and claimed in the patent, neither of which has been sufficiently demonstrated or asserted by Patent Owner),² we are still not persuaded by Patent Owner's arguments. As noted above, in discussing secondary considerations, Patent

² See *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1329 (Fed. Cir. 2016) (citations omitted) (concluding that "there is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product 'is the invention disclosed and claimed in the patent.'")

Owner generally alludes to providing secure communications. To the extent Patent Owner argues that providing secure communications is the presumed nexus that ties the secondary consideration factors to the claimed invention, we note that Provino discloses this feature, and there can be no nexus when the alleged secondary consideration factors stem from what was known in the prior art. *Tokai Corp. v. Easton Enterprises, Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011).

As previously stated and in accordance with instructions from the Federal Circuit, we consider the “*claimed invention as a whole*” when determining whether Patent Owner has provided a sufficient nexus between the alleged secondary considerations (e.g., commercial success) and the claimed invention (“as a whole”) to overcome the prima facie showing of obviousness (as noted above, however, the Examiner rejects claim 1 as anticipated by Provino, a fact that is being ignored temporarily for the sake of discussion). As previously discussed above and based on the evidence of record, Provino discloses each of the parts of the claimed invention and, therefore, also discloses the “whole” claimed invention. Therefore, when considering the “claimed invention as a whole,” we still conclude that Patent Owner has not provided a sufficient showing of nexus between the alleged secondary considerations and the “claimed invention as a whole” to overcome the Examiner’s finding.

Praise in the Industry

Patent Owner argues that “[t]hose in the industry have . . . praised the inventions . . . by investing in the technology or licensing it.” PO App. Br. 71. However, as previously discussed, Patent Owner does not demonstrate

sufficiently any specific reason for any alleged investment and licensing activity on the part of business entities. Therefore, no specific reason is provided regarding any alleged praise of the claimed invention.

As previously discussed, Patent Owner provides insufficient evidence to conclude that any licensing (or investing for that matter) activity was performed for any particular purpose or was related to any specific claim at issue in this proceeding. Nor does Patent Owner demonstrate sufficiently a nexus between the alleged praise and the “claimed invention as a whole.” Based on the evidence of record, we can only conclude that there is an allegation that licenses were entered into and investments were made without any showing as to the motivation behind these alleged activities. This is insufficient to conclude that these alleged activities constitute an expression of “praise” for the “claimed invention as a whole” (or because of “commercial success”).

In any event, to the extent that Patent Owner alleges that those of skill in the art “praised” the claim feature of providing secure communications (and, hence, providing secure communications is the basis of the alleged “praise”), that feature is recited in claim 1. The Examiner finds claim 1 to be anticipated by Provino. Secondary considerations are inapplicable with respect to anticipation of the claimed invention.

In summary, we are not persuaded by Patent Owner’s argument related to secondary considerations.

We have considered each Request for Rehearing of Patent Owner and Requester, respectively, but find them unpersuasive as to error in the Decision to affirm the previously affirmed Examiner’s rejections.

Appeal 2016-004466
Reexamination Control 95/001,789
Patent 7,921,211 B2

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

DENIED

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