

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY MOBILE COMMUNICATIONS INC.,
Petitioner,

v.

SSH COMMUNICATIONS SECURITY OYJ,
Patent Owner.

Case IPR2015-01869
Patent 8,544,079

Before BRYAN F. MOORE, TRENTON A. WARD, and
WILLIAM M. FINK, *Administrative Patent Judges*.

MOORE, *Administrative Patent Judge*.

DECISION
Granting In Part Patent Owner's Request for Rehearing
37 C.F.R. § 42.71(d)

INTRODUCTION

Patent Owner filed a Request for Rehearing (Paper 14, “Req. Reh’g”) of the Decision to Institute *Inter Partes* Review (Paper 11, “Dec. on Inst.” or “Decision”) of claims 1–32 of U.S. Patent No. 8,544,079 (Ex. 1001, “the ’079 patent”). In the Request for Rehearing, Patent Owner argues that the Decision to Institute overlooked certain matters in the Preliminary Response (Paper 10, “Prelim. Resp.”). For the reasons set forth below, the Request for Rehearing is *granted in part*.

ANALYSIS

When considering a request for rehearing, we review the Decision for an abuse of discretion. 37 C.F.R. § 42.71(c). The party requesting rehearing bears the burden of showing that the Decision should be modified, and “[t]he request must specifically identify all matters the party believes [we] misapprehended or overlooked.” 37 C.F.R. § 42.71(d).

Claims 2, 9, 13, 19, 24, 26, 31, and 32 as Obvious Over Bellovin and the Knowledge of One of Ordinary Skill in the Art

Patent Owner asserts that the Board “[did] not address the additional features of claims 2, 9, 13, 19, 24, 26, 31, and 32, [and] that Patent Owner distinguished over Bellovin and other combined art in its Preliminary Response.” Req. Reh’g 2. Patent Owner further argues “[t]he Board gave detailed consideration to Patent Owner’s arguments as to these claims with respect to Shuen/RFC1234 and, based on these arguments, excluded those grounds from institution, ” but, Patent Owner argues, the Board did not address corresponding arguments distinguishing these claims over Bellovin. *Id.* at 3–4.

Claim 2 recites: “wherein the at least one keepalive packet comprises a header with address information that equals address information in the

headers of the datagrams.” Ex. 1001, 15:26–29. For this claim, Petitioner relies on the disclosure in Bellovin of BTI-to-BTI keepalive messages, which are transmitted from one BTI to another through the NAT device. Paper 7, Petitioner’s Supplemental Petition (“Pet.”) 28 (citing Ex. 1004, 19–20, 42, Fig. 6¹). Petitioner argues that it would have been “obvious that the addresses must match the addresses of non-keepalive datagrams because otherwise the keepalive packets could not be properly routed.” *Id.*

Patent Owner asserts “***Bellovin is explicit, however, that the addresses do not match.***” Req. Reh’g 2 (quoting Prelim. Resp. 55–56). Specifically, Patent Owner states that “[d]istinct from the DATAADDR addresses, Bellovin discloses that the BTI-to-BTI keepalive messages are sent via a signaling communication channel via SIGADDR addresses,” (Prelim. Resp. 56) and “[t]he alleged claim 2 ‘header with address information [comprised in the at least one keepalive packet]’ would thus comprise the SIGADDR addresses of the source and destination BTIs” (*id.*).

Patent Owner bases this statement on its assertion that Petitioner “alleges that the claimed ‘address information in the headers of the datagrams’ is disclosed in Bellovin as the IP address and UDP port number of the DATAADDR field, which are the addresses to and from which the BTI’s send and receive voice data.” Req. Reh’g 2–3 (quoting Prelim. Resp. 55–56 (citing Pet. 25)). We acknowledge that the Petition states “[o]ther portions of the specification confirm that Bellovin assumes use of UDP to transport the phone calls’ voice data packets, e.g. by including an IP address

¹ Petitioner cites to internal page numbers of the Bellovin Provisional instead of the page numbers added to Ex. 1004.

and UDP port number in the ‘DATAADDR’ field.” Pet. 25 (citations omitted). Nevertheless, Patent Owner has not persuasively opposed Petitioner’s showing, supported by Bellovin and its declarant, that it would have been obvious that the IP address in the “DATAADDR” field matches the address information in the keepalive packet, i.e. the address in the “SIGADDR” field, as both DATAADDR and SIGADDR contain the IP address of the BTI. Pet. 28 (citing Ex. 1004, 19–20, 42, Fig. 6²; Ex. 1002 ¶[193]). That is, Patent Owner does not directly address Petitioner’s contention that the addresses much match so the keepalive packets can be properly routed. See Pet. 28.

Accordingly, we are not persuaded by Patent Owner’s argument at this stage of the proceeding. Patent Owner will have an opportunity to challenge this ground in greater detail, on a more developed record, in its Patent Owner Response.

Claims 4, 11, 21, and 28 as Obvious Over Bellovin and the Knowledge of One of Ordinary Skill the Art

Dependent claims 4, 11, 21, and 28 add limitations concerning the packet or datagram being “without any meaningful payload.”

Bellovin

Patent Owner correctly points out that Petitioner relies on the Carmichael reference to meet the limitations of these claims for the Bellovin-based challenge. Req. Reh’g 5 (citing Pet. 29). Petitioner states:

It would have been obvious to use Carmichael’s technique [i.e., keepalive packets without meaningful payload] in Bellovin. Bellovin uses keepalive packets precisely because calls are on

² Petitioner cites to internal page numbers of the Bellovin Provisional instead of the page numbers added to Ex. 1004.

hold, and there is no call data to transmit. See §VII.C.6, above. It would have been obvious to not send data (i.e. have no “meaningful payload”), when there is no data to send. (Ex. 1002, ¶¶200-204).

Pet. 29.

Patent Owner explains, however, that Bellovin’s keeplive payloads have meaningful information used in processing the packet.³ Req. Reh’g 4 (citing Ex. 1003, 20:29–32, 33:53–55). Our Decision indicated incorrectly that the grounds upon which we did not institute, the “remaining grounds” including Carmichael, were redundant. Dec. on Inst. 24. However, because Carmichael is not redundant as to claims 4, 11, 21, and 28, we discuss those claims below.

Carmichael (Ex. 1009) teaches a system for converting communications protocols. In Carmichael’s system, two computers (“Node A” and “Node B”) communicate with one another over the Internet. Ex. 1009, 3. In each node, there is an application (“APPC/CPIC”) that needs to communicate with its counterpart in the other node. *Id.* at 11. The communication needs to happen according to the LU6.2 communications protocol. *Id.* at 3. This protocol is not used on the Internet, however, and

³ Petitioner cites without explanation to paragraphs in its Declarant’s testimony related to how Bellovin could teach keepalives without a meaningful payload but does not present this argument in the Petition. Pet. 29 (citing Ex. 1002, ¶¶200–04). The Petition purports to rely only on Carmichael for the limitation of claims 4, 11, 21, and 28 to keepalives without a meaningful payload. Pet. 29. The Petition merely cites the Bradner Declaration and does not explain sufficiently the significance of the cited testimony. *Id.*; see also 37 C.F.R. § 42.22(a)(2). “Arguments must not be incorporated by reference from one document into another document.” 37 C.F.R. § 42.6(a)(3). Therefore, we do not consider that testimony.

thus needs to be converted to TCP/IP. *Id.* This conversion is performed by the node in the box labeled “TCP62,” which converts LU6.2 to TCP/IP and vice versa. *Id.* at 11. As part of this conversion process, addresses used in the LU6.2 protocol are translated to IP addresses and back again. *Id.*

Carmichael describes the translation process as follows:

Address mapping can be thought of as a type of compensation to be provided, not due to a mismatch in transport protocol function, but due to a mismatch in naming conventions used in different protocols to identify communications partners. Since an APPC/CPIC application uses an LU name to identify its partner, this has to be translated to an IP address by TCP62 so that communication with the node where the partner LU resides can take place over TCP/IP.

Ex. 1009, 11.

Carmichael teaches that the TCP62 node has timeout values for its communication sessions. Ex. 1009, 19–20. Petitioner asserts that Carmichael further teaches that the communicating nodes can use keepalive datagrams to maintain the sessions. Pet. 20 (citing Ex. 1002 ¶¶ 145–152). Carmichael states:

The MPTN keepalive protocol is executed by two TCP62 nodes that have one or more LU6.2 sessions with each other.

...

The keepalive protocol involves sending a keepalive datagram if an inactivity timer expires, and waiting for a response.

- When the first LU6.2 session between a pair of TCP62 nodes is set up, an inactivity timer is started for that partner node. The value of the timer should be user settable.

- When any data is received from the partner node - such as a connection request, data on an existing connection, an OOB datagram, or a keepalive datagram - the timer is reset. However, if no data is received from that partner before the timer expires,

the MPTN keepalive protocol is initiated with that partner by sending it a keepalive datagram. Like OOB datagrams, keepalive datagrams flow as payloads of UDP datagrams and are sent to port 397, the MPTN well-known datagram port number. *Keepalive datagrams never include any LU6.2 payload.*

Ex. 1009, 19–20 (emphasis added).

Petitioner asserts that, in a context similar to that of Bellovin, Carmichael teaches using keepalive datagrams to “preserve communications that involve address mapping.” Pet. 20. We are not persuaded that this conclusory statement is a sufficient showing of a reasonable rationale to combine Bellovin and the keepalive packets without meaningful payload of Carmichael. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”).

Petitioner also asserts

Keepalive datagrams were thus a well-known solution to the problem of avoiding communication session (and address mapping) timeouts. A person of skill in the art, seeing Bellovin’s system and knowing of the potential to use keepalives, would have found it obvious to do so for NAT mappings just as with other phone call resources. The relevant field is predictable, and the implementation of keepalives was well within ordinary skill (as evidenced by the keepalive references), and could have been accomplished without surprising results. Indeed, the ’079 patent reports no surprising results. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1739–40 (2007). (Ex. 1002, ¶¶ 165–166).

Pet. 24.

Petitioner has not identified sufficient support for the predictability of the art. Although Petitioner presents references that disclose keepalive

messages, Petitioner has not explained sufficiently why, or identified evidence that shows, that the invention described in the '079 Patent falls into a very predictable field, that one of ordinary skill in the art would have possessed the requisite skills to make the proposed combination with Carmichael, or that one of ordinary skill in the art reasonably would have anticipated the combination to function in an ordinary and expected way. *See Rothman v. Target Corp.*, 556 F.3d 1310, 1319–20 (Fed. Cir. 2009).

Additionally, the payload in Bellovin contains meaningful information. Req. Reh'g 4 (citing Ex. 1003, 20:29–32; Ex. 1004, 32, 103, 111⁴). Petitioner has not explained how Carmichael's teaching of keepalives having no meaningful information in the payload could be combined with Bellovin's system in which the keepalive payload has meaningful information. *See KSR*, 550 U.S. at 418 ("A patent composed of several elements is not proved obvious by merely demonstrating that each of its elements was, independently, known in the prior art."); *see also Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013):

Where, as here, the necessary reasoning is absent, we cannot simply assume that 'an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.' It is in such circumstances, moreover, that it is especially important to guard against the dangers of hindsight bias." (Citation omitted).

Although, as stated above, Petitioner relies on the combination of Bellovin and Carmichael, we also determine Petitioner has not presented sufficient motivation to modify Bellovin alone to meet this limitation.

⁴ Patent Owner cites to the page numbers added to Ex. 1004 instead of the internal page numbers of the Bellovin Provisional.

Thus, we are not persuaded that Petitioner has shown a reasonable likelihood of success as to its challenge to claims 4, 11, 21, and 28 based on the combination of Bellovin and Carmichael. Thus, we amend the Decision to Institute such that we do not institute as to the challenge to claims 4, 11, 21, and 28 as unpatentable in view of Bellovin and the knowledge of a person having ordinary skill in the art.

Shuen

As to the ground based on the Shuen reference, Patent Owner argues that

In view of the initial claim constructions determined by the Board for purposes of its Institution Decision (partially disagreeing with Patent Owner's proffered constructions), it is respectfully submitted that rehearing is appropriate based on the Board overlooking the above-noted ground-defeating distinctions of claims 4, 11, 21, and 28 under the Board's initial claim constructions.

Req. Reh'g 5–6. The fact that the Board did not accept Patent Owner's construction and, as a result, the Board instituted on the independent claims is not an indication that the Board overlooked or misapprehended Patent Owner's new argument, which is not contained in the Preliminary Response.

Our rules state that “[t]he burden of showing a decision should be modified lies with the party challenging the decision” and require that “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply.” 37 C.F.R. § 42.71(d). Patent Owner does not cite to anything in its Preliminary Response disclosing this argument. Patent Owner's Request for Rehearing, therefore, does not identify “the place where each matter was previously

addressed in a motion, an opposition, or a reply,” as required by Rule 71(d). Accordingly, we are not persuaded that we misapprehended or overlooked the new argument.

Claim 26 as Obvious Over Shuen and RFC 1234

Patent Owner argues that claim 26 contains limitations similar to limitations in claims 2, 9, 13, 19, 24, 31, and 32 that the Board found lacking in the asserted the combination of Shuen and RFC 1234. Req. Reh’g 6. Patent Owner argues that we should have declined to institute as to claim 26 for the same reasons. We agree. Thus, we amend the Decision to Institute such that we do not institute as to the challenge to claim 26 based on the combination of Shuen and RFC 1234.

Claim 32 as Obvious Over Bellovin and the Knowledge of One of Ordinary Skill the Art and as Obvious Over Shuen and RFC 1234

Patent Owner asserts that “Petitioner provided **no** argument as to the combination of features in claim 32.” Req. Reh’g 7. Nevertheless, Petitioner does present arguments as to each limitation contained in claim 32. Claim 32 depends from claim 31. Petitioner provides a detailed explanation why claim 31 would have been obvious over the Bellovin challenge (Pet. 40–41) and the Shuen challenge (Pet. 60). Claim 32 adds a limitation that is identical to the limitation added in claim 7, except that claim 7 depends from claim 1 rather than claim 31. Petitioner relies on its discussion of claim 7 for that limitation. Pet. 31–32, 41, 51–52, 60. We are not persuaded that Petitioner’s failure to refer back to its discussion of claim 31 as a part of its discussion of claim 32 is fatal to its challenge of claim 32. Thus, we are not persuaded by this argument.

CONCLUSION

We considered Petitioner's Request for Rehearing. As a result of the arguments presented, we modify our Decision to Institute as follows: (1) we decline to institute as to the combination of Bellovin and knowledge of one of ordinary skill in the art or Bellovin and Carmichael as to claims 4, 11, 21, and 28; and (2) we decline to institute as to the combination of Shuen and RFC 1234 as to claim 26. As to the remaining arguments presented, the Request for Rehearing does not demonstrate that the Decision misapprehended or overlooked any matters in the case.

ORDER

Accordingly, it is

ORDERED that the Request for Rehearing is *granted-in-part*;

FURTHER ORDERED that Petitioner has not shown a reasonable likelihood of success the claims 4, 11, 21 and 28 were unpatentable under § 103(a) as obvious over any combination including the Bellovin reference;

FURTHER ORDERED that Petitioner has not shown a reasonable likelihood of success the claim 26 was unpatentable under § 103(a) as obvious over the combination of Shuen and RFC 1234;

FURTHER ORDERED that the Decision is modified to include our analysis herein regarding whether claims 4, 11, 21, and 28 would have been obvious over Bellovin in combination with the knowledge of one of ordinary skill or with Carmichael and to include our analysis herein regarding whether claim 26 would have been obvious over the combination of Shuen and RFC 1234; and

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FURTHER ORDERED that the Request for Rehearing is *denied* as to the challenge to claims 2, 9, 13, 19, 24, 26, 31, and 32 based on Bellovin in combination with the knowledge of one of ordinary skill and as to the challenge to claims 4, 11, 21, 28, and 32 based on Shuen and RFC 1234.

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