

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD BIANCONI, JAY ARMSTRONG, and
PAUL BOUDREAUX

Appeal 2008-3705
Application 10/334,669
Technology Center 2600

Decided: January 12, 2009

Before JOSEPH F. RUGGIERO, MAHSHID D. SAADAT, and
KEVIN F. TURNER, *Administrative Patent Judges*.

TURNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM-IN-PART.

Appellants' claimed invention relates to mobile communications systems, specifically delivering short message service (SMS) messages in a

Universal Mobile Telecommunications System (UMTS) network. (Spec. 1:10-12).

Claims 1 and 13 are illustrative of the invention and read as follows:

1. A method in an SGSN of a GPRS/UMTS network for wireless communications including a mobile node, the SGSN, a GGSN, an HLR, an SMS-G and a SMS-SC, the method comprising:

receiving, from the mobile node, an initial UE (attach request) message to establish a signaling link;

authenticating the mobile node to determine whether to allow it to attach to the network;

informing an HLR that the mobile node is attached;

accepting and completing the attach;

delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation with signaling links present;

receiving a short message service message from an SMS gateway (interworking function);

delivering the short message service message to the mobile node; and

tearing down the attached signaling link to place the mobile node in a standby mode of operation.

13. A method in an SGSN of a GPRS/UMTS network for wireless communications including a mobile node, the SGSN, a GGSN, an HLR, an SMS-G and a SMS-SC, the method comprising:

receiving, from the mobile node, an initial UE (attach request) message to establish a signaling link;

authenticating the mobile node to determine whether to allow it to attach to the network;

informing an HLR that the mobile node is attached;

accepting and completing the attach;

determining whether to delay tearing down the attached signaling link;

delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation with signaling links present;

receiving a short message service message from an SMS gateway (interworking function);

delivering the short message service message to the mobile node; and

tearing down the attached signaling link to place the mobile node in a standby mode of operation.

The Examiner relies on the following prior art references to show unpatentability:

Josse (Josse '929)	US 6,104,929	Aug. 15, 2000
Josse (Josse '925)	US 6,259,925	Jul. 10, 2001
Herajarvi	US 2001/0029174 A1	Oct. 11, 2001
Salin	US 6,370,390 B1	Apr. 9, 2002
Kari	US 6,636,491 B1	Oct. 21, 2003 (filed Jan. 11, 1999)
Einola	US 6,741,860 B1	May 25, 2004 (filed Nov. 5, 1999)
Mizell	US 6,760,344 B2	Jul. 6, 2004 (filed Dec. 19, 2000)

Claims 1, 2, 5, 9-11, 13, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kari and Salin.

Claims 3 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Josse '925.

Claims 4, 6, 7, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Einola.

Claims 8 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Josse '929.

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Herajarvi.

Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kari and Mizell.

Appellants argue that Kari and Salin fail to teach or suggest SMS message transmission or receipt during a tear-down delay, as required by claims 1 and 13, and thus the combination of Kari and Salin fails to teach or suggest all of the elements of Appellants' claims. (Br. 10-13). Appellants also argue that the combination of Kari and Mizell fails to teach or suggest all of the elements of independent claim 19 and the other references cited fail to cure the deficiencies in the base rejections. (Br. 14-17). The Examiner finds that the cited references teach or suggest all of the elements of the rejected claims and that Appellants' arguments are based on aspects of the Specification that are being read into the claims. (Ans. 10-15).

Rather than reiterate all of the arguments of Appellants and the Examiner, reference is made to the Brief and the Answer for the respective details. Only those arguments actually made by Appellants have been

considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUES

(i) Under 35 U.S.C. § 103(a), with respect to appealed claims 1, 2, 5, 9-11, 13, and 16, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kari and Salin to render the claimed invention unpatentable?

(ii) Under 35 U.S.C. § 103(a), with respect to appealed claim 2, 5, and 9, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kari, Salin, and Josse '925 to render the claimed invention unpatentable?

(iii) Under 35 U.S.C. § 103(a), with respect to appealed claims 3 and 4, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kari, Salin, and Einola to render the claimed invention unpatentable?

(iv) Under 35 U.S.C. § 103(a), with respect to appealed claims 6-8, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kari, Salin, and Josse '929 to render the claimed invention unpatentable?

(v) Under 35 U.S.C. § 103(a), with respect to appealed claims 11-15, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kari, Salin, and Herajarvi to render the claimed invention unpatentable?

(vi) Under 35 U.S.C. § 103(a), with respect to appealed claims 19 and 20, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Kari and Mizell to render the claimed invention unpatentable?

FINDINGS OF FACT

1. Independent claim 1 recites, in part, “delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation with signaling links present.” It is noted that the delay step is required in the method.

2. Independent claim 13 recites, in part, “determining whether to delay tearing down the attached signaling link.” It is noted that the delay in the tear down is not necessarily required in the method.

3. Independent claim 19 recites, in part, “the computer instructions defining logic for generating information introducing a delay prior to initiating tear down procedures for an attached signaling link.” It is noted that the introduction of a delay is required to be a part of the computer instructions.

4. Kari is directed to an access control method for a mobile communications system involving a general packet radio service (GPRS) network. The system includes a mobile station (MS), a Serving GPRS Support Node (SGSN), a home location registry (HLR), and several GPRS gateway support nodes (GGSNs). In order to access the GPRS services, the MS makes its presence known to the network by performing a GPRS attach. This operation establishes a logical link between the MS and the SGSN, and makes the MS available for SMS over GPRS, paging via SGSN, and

notification of incoming GPRS data. The authentication of the user is carried out by the SGSN in the GPRS attach procedure. (Abstract; col. 3, ll. 44-67, col. 5, ll. 6-15; Fig. 1).

5. Kari details that in the standby and the ready states, the MS is attached to the GPRS, where the MS switches from the standby state to the ready state either when the GPRS network searches for the MS or when the MS initiates data transmission or signaling. The MS may remain in the ready state, for a period set by a timer, even when no user data is transmitted nor signaling performed. No other criterion for delay is provided other than the timer. (Col. 5, ll. 45-56).

6. Salin discloses the delivery of short messages in a packet radio network. That network includes an HLR home location registry in communication with a SGSN, with a Gateway Mobile Switching Center for SMS (SMS-GMSC), and with a short message service center (SM-SC). (Abstract; Col. 2, l. 53 – col. 3, l. 5; Fig. 1).

7. Josse '925 details the retention of a connection for SMS message delivery without requiring additional paging or security related function. The retention time is determined by a timer, where for GSM systems, the timer value is less than ten seconds. (Abstract; Col. 8, ll. 35-45).

8. Einola is directed to processes of setting up and releasing connections in a telecommunications system. The reference details the process of tearing down a signaling link, including sending an Iu release command and receiving an Iu release complete signal. The reference does not disclose the tear down process in conjunction with any SMS messages. (Abstract; Col. 5, ll. 17-64).

9. Josse '929 details that enhanced mobility management may be obtained by updating a gateway GPRS support node with the address of the latest SGSN. A portion of this process involves sending an Identity Request message to the mobile station and receiving the mobile station's identity type in response thereto. (Abstract; Col. 8, ll. 35-43).

10. Herajarvi is directed to a method and system for charging for SMS messages. As a part of that system, a determination is made whether a mobile node is SMS capable or whether the subscriber has been deactivated. (Abstract; [0042]).

11 Mizell is directed to providing differentiated quality of service (QoS) in a GPRS network. The reference details that the SGSN includes a processor, a memory and an internal bus. (Abstract; Col. 5, ll. 31-38; Fig. 2, elements 200, 204, 208, and 212).

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988).

[T]here must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness' [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

During examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re Am. Acad. of Sci. Tech Center*, 367 F.3d 1359, 1369 (Fed. Cir. 2004). When the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989). “Even when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005) (citations and internal quotation marks omitted).

ANALYSIS

I. Obviousness over Kari and Salin *Claims 1, 2, 5, 9-11, 13, and 16*

Appellants argue that neither Kari nor Salin addresses delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation with signaling links present. (Br. 10). The Examiner finds that in Kari, the mobile station may remain in the ready state, based on a period set by a timer, which is equivalent to delaying the tear down of the attached signaling link. (Ans. 10). We agree with the Examiner, as Kari does provide for a delay in the tear down, keeping the mobile station in the ready state. (FF. 5).

Appellants also argue that Kari does not teach or suggest SMS message transmission during the tear-down delay. (Br. 10-11). The Examiner finds that since the mobile station is in the ready state during the

delay, any SMS message present can be transmitted thereto during the delay. (Ans. 11). While the Examiner acknowledges that Kari does not explicitly recite that the tear-down delay enables the transmission of an SMS message, (Ans. 11), we agree with the Examiner that such a transmission could occur during the tear-down delay. We find that it would have been obvious to have the mobile station accept the SMS message during the tear-down delay if such a message was sent from an SMS gateway.

Appellants argue that Salin is an interrupted service device that does not recite receiving a SMS message prior to a tear down of an attached signaling link. (Br. 12-13). The Examiner responds that the order of the steps in claims 1 and 13 does not have to follow the stated order, that a mobile device must be attached to the network to receive the SMS message, and that the rejection does not rely on Salin to teach this aspect described in Kari. (Ans. 11-12). We agree with the Examiner to the extent that teachings of Salin do not alter the functionalities of Kari discussed above.

In addition, Appellants argue that the combination of Kari and Salin do not teach or suggest all of Appellants' claim limitations, where Appellants cite the benefits of the invention recited in Appellants' Specification. (Br. 13). We agree with the Examiner, (Ans. 12-13), that the features pointed out by Appellants are not recited in the rejected claims and we limit our consideration to the elements specifically recited in the claims. As such, we find no error in the Examiner's rejection of claims 1, 2, 5, and 9-11 as being unpatentable over Kari and Salin.

However, with respect to claims 13 and 16, claim 13 recites a different condition than that recited in claim 1. (FF. 1 and 2). Claims 13 provides that a determination is made whether the tearing down should

occur. Kari provides for a delay in the tear down in the connection, as we found *supra*, but there is no conditional delay described in Kari. While the delay time from the timer, could be very short, in Kari, there is nothing to suggest a determination is made to have no delay in the tear down if certain conditions are met. In addition, we note the similarity of the language of claims 4 and 13, where the Examiner acknowledges that the subject matter of claim 4 is not taught or suggested by Kari and Salin alone. (Ans. 6). As such, we cannot agree with the Examiner that Kari and Salin render claim 13 obvious. Thus, we find that the Examiner erred in rejecting claims 13 and 16 as being unpatentable in view of Kari and Salin.

II. Obviousness over Kari, Salin, and Josse '925

Claims 3 and 17

Appellants argue that Josse '925 does not address delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation. (Br. 15). However, since we do not find Kari and Salin to have the deficiencies that Appellants allege with respect to claim 1, *supra*, and Josse '925 discloses a delay time of approximately ten seconds, (FF. 7), we find no error in the rejection of claim 3 over Kari, Salin and Josse '925.

In addition, with respect to claim 17, we have decided *supra*, that Kari and Salin do not teach or suggest the subject matter of independent claim 13 and we do not find that Josse '925 supplies the elements of claim 13 not taught or suggested by Kari and Salin. As such, we find the rejection of claim 17 to have been made in error.

III. Obviousness over Kari, Salin, and Einola

Claims 4, 6, 7, and 18

Appellants argue that Einola does not address delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation. (Br. 15-16). However, since we do not find Kari and Salin to have the deficiencies that Appellants allege with respect to claim 1, *supra*, and Einola discloses the sending of an Iu release command and the receiving of an Iu release complete signal, (FF. 8), we find no error in the rejection of claims 6 and 7 over Kari, Salin and Einola.

In addition, Appellants argue that Einola does not refer to SMS messaging. (Br. 15). We agree. The reference does not appear to disclose the tear down process in conjunction with any SMS messages. (FF. 8). Since claim 4 recites, in part, that the link is torn down “upon determining that there is no pending SMS messages for the mobile node,” Einola cannot be said to teach or suggest such a functionality. As such, we find the rejection of claim 4 to have been made in error.

In addition, with respect to claim 18, we have decided *supra*, that Kari and Salin do not teach or suggest the subject matter of independent claim 13 and we do not find that Einola supplies the elements of claim 13 not taught or suggested by Kari and Salin. As such, we find the rejection of claim 18 to have been made in error.

IV. Obviousness over Kari, Salin, and Josse ‘929

Claims 8 and 12

Appellants argue that Josse ‘929 does not address delaying the tear down of the attached signaling link to keep the mobile node in a connected

mode of operation. (Br. 16). However, since we do not find Kari and Salin to have the deficiencies that Appellants allege, *supra*, we find no error in the rejection of claims 8 and 12 over Kari, Salin and Josse '929.

V. *Obviousness over Kari, Salin, and Herajarvi*
Claims 14 and 15

Appellants argue Herajarvi does not address delaying the tear down of the attached signaling link to keep the mobile node in a connected mode of operation. (Br. 16). However, as we have decided *supra*, Kari and Salin do not teach or suggest the subject matter of independent claim 13 and we do not find that Herajarvi supplies the elements of claim 13 not taught or suggested by Kari and Salin. As such, we find the rejection of claims 14 and 15 to have been made in error.

VI. *Obviousness over Kari and Mizell*
Claims 19 and 20

Appellants argue that the hypothetical combination of Kari and Mizell does not teach or suggest all of the limitations of claims 19 and 20. (Br. 14). Appellants preface their remarks with the assertion that Kari does not introduce a delay prior to initiating tear down procedures for an attached signaling link, which we have refuted above. Appellants argue that Mizell does not cure the deficiencies of Kari, but since we do not find Kari to have the deficiencies that Appellants allege, we cannot agree with Appellants.

We also note that claims 19 recites the introduction of a delay and claim 20 recites the use of a countdown timer and an indication of no pending SMS messages in the alternative. As such, since we have found

Kari to suggest the use of a delay timer to delay the tear down of the connection *supra*, we agree with the Examiner that the subject matter of claims 19 and 20 are rendered obvious in view of Kari and Mizell. As such, we find no error in the rejection of claims 19 and 20.

CONCLUSION

The decision of the Examiner rejecting claims 1, 5, and 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Kari and Salin is affirmed and the decision of the Examiner rejecting claims 13 and 16 on the same basis is reversed. The decision of the Examiner rejecting claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Josse '925 is affirmed and the decision of the Examiner rejecting claim 17 on the same basis is reversed. The decision of the Examiner rejecting claims 6, and 7 under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Einola is affirmed and the decision of the Examiner rejecting claims 4 and 18 on the same basis is reversed. The decision of the Examiner rejecting claims 8 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Josse '929 is affirmed. The decision of the Examiner rejecting claims 14 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Kari, Salin, and Herajarvi is reversed. The decision of the Examiner rejecting claims 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Kari and Mizell is affirmed.

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DECISION

The Examiner's rejections of claims 1-3, 5-12, 19 and 20 before us on appeal are affirmed and the Examiner's rejections of claims 4 and 13-18 are reversed.

AFFIRMED-IN-PART

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