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**Datasheet for the decision
of 28 April 2016**

Case Number: T 0906/12 - 3.5.03

Application Number: 03776436.2

Publication Number: 1556958

IPC: H04B1/00

Language of the proceedings: EN

Title of invention:

APPARATUS AND METHOD FOR EXTENDING THE COVERAGE AREA OF A
LICENSED WIRELESS COMMUNICATION SYSTEM USING AN UNLICENSED
WIRELESS COMMUNICATION SYSTEM

Applicant:

Kineto Wireless, Inc.

Headword:

Communication system/KINETO

Relevant legal provisions:

EPC Art. 123(2)
RPBA Art. 13(1)

Keyword:

Admissibility of late-filed requests (no) - prima facie
infringement of Article 123(2) EPC (all requests)

Decisions cited:

Catchword:



Beschwerdekammern
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Case Number: T 0906/12 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 28 April 2016

Appellant: Kineto Wireless, Inc.
(Applicant) 1601 McCarthy Blvd.
Milpitas, CA 95035 (US)

Representative: Hirsch & Associés
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75007 Paris (FR)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 28 November
2011 refusing European patent application No.
03776436.2 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman F. van der Voort
Members: T. Snell
S. Fernández de Córdoba

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division refusing European patent application No. 03776436.2, with publication number WO 2004/036770.
- II. The refusal was essentially based on the grounds that the subject-matter of claim 1 of, respectively, a main request and seven auxiliary requests did not comply with Article 123(2) EPC.
- III. The appellant filed a notice of appeal against the above decision. New sets of claims of respectively a main request and an auxiliary request were filed together with the statement of grounds of appeal.

Oral proceedings were conditionally requested.
- IV. In a communication accompanying a summons to oral proceedings, the board gave a preliminary opinion in which, inter alia, objections under Article 123(2) EPC were raised against claim 1 of each request.
- V. In response to the board's communication, the appellant filed with a letter dated 20 April 2016 claims of a new main request and two auxiliary requests, replacing the requests on file.
- VI. Oral proceedings were held on 28 April 2016.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, in the alternative, on the basis of the claims of either the first or the second auxiliary request, all requests as filed with the letter dated 20 April 2016.

At the end of the oral proceedings, after due deliberation, the chairman announced the board's decision.

VII. Claim 1 of the **main request** reads as follows:

"A system, comprising:
a mobile station, including:
a first plurality of protocol layers for a wireless service having a wireless channel (106) serviced by a cellular telecommunications network utilizing wireless signal frequencies that are licensed from governments;
and
a second plurality of protocol layers for a wireless service activated when said mobile station is within a wireless service area of an indoor base station using a wireless channel (126) utilizing unlicensed, free spectrum;
said indoor base station operable to communicate with said mobile station through said wireless channel (126) utilizing unlicensed, free spectrum; and
an indoor network controller coupled to said indoor base station and adapted to exchange signals with said cellular telecommunications network;
characterised in that
the indoor base station being an access point;
wherein said network controller and said indoor base station are configured to convert said second plurality of protocol layers into a base station controller interface protocol (190) recognized by said cellular telecommunications network;
wherein said second plurality of protocol layers of the mobile station includes a plurality of access layers (Figure 7B), an Internet Protocol, IP, layer over the plurality of access layers (Figure 7B), and a plurality

of additional protocol layers over the IP layer (Figure 7B) for exchanging signals with said indoor network controller;

wherein the indoor network controller includes a plurality of access layers (Figure 7B), an IP layer over the plurality of access layers (Figure 7B), and a plurality of protocol layers over the IP layer (Figure 7B);

wherein the indoor base station includes a plurality of access layers (Figure 7B) and an IP layer over the plurality of access layers (Figure 7B), wherein the indoor base station does not include any protocol layers over the IP layer (Figure 7B), wherein the indoor base station provides IP connectivity between the mobile station and the indoor network controller utilizing said IP layer (Figure 7B);

wherein said mobile station, said indoor base station, and said network controller are configured to establish, on said wireless channel utilizing said unlicensed, free spectrum, a communication session using said base station controller interface protocol recognized by said cellular telecommunications network."

VIII. Claim 1 of the **first auxiliary request** reads as follows:

"A system, comprising:

a mobile station, including:

a first plurality of protocol layers for a first wireless service having a wireless channel (106) serviced by a cellular telecommunications network utilizing wireless signal frequencies that are licensed from governments; and

a second plurality of protocol layers for a second wireless service activated when said mobile station is

within a wireless service area of an indoor base station using a wireless channel (126) utilizing unlicensed, free spectrum;

said indoor base station operable to communicate with said mobile station through said wireless channel (126) utilizing said unlicensed, free spectrum; and

an indoor network controller coupled to said indoor base station and adapted to exchange signals with said cellular telecommunications network;

characterised in that

the indoor base station being an access point;

wherein said network controller and said indoor base station are configured to convert said second plurality of protocol layers into a base station controller interface protocol (190) recognized by said cellular telecommunications network;

wherein said second plurality of protocol layers of the mobile station includes a plurality of access layers (Figure 7B), an Internet Protocol, IP, layer over the plurality of access layers (Figure 7B), and a plurality of additional protocol layers, comprising at least a protocol layer with functionality that enables said conversion of said second plurality of protocol layers into said base station controller interface protocol, over the IP layer (Figure 7B);

wherein the indoor network controller includes a plurality of access layers (Figure 7B), an IP layer over the plurality of access layers (Figure 7B), and a plurality of protocol layers, comprising at least a protocol layer with functionality for converting said additional plurality of protocol layers of said mobile station into said base station controller interface protocol, over the IP layer (Figure 7B);

wherein the indoor base station includes a plurality of access layers (Figure 7B) and an IP layer over the plurality of access layers (Figure 7B), wherein the

indoor base station does not include any protocol layers over the IP layer (Figure 7B), wherein the indoor base station does not include any protocol layer with functionality for converting said additional plurality of protocol layers into said base station controller interface protocol, wherein the indoor base station provides IP connectivity between the mobile station and the indoor network controller utilizing said IP layer (Figure 7B); wherein said mobile station, said indoor base station, and said network controller are configured to establish, on said wireless channel utilizing unlicensed, free spectrum, a communication session using said base station controller interface protocol recognized by said cellular telecommunications network."

IX. Claim 1 of the **second auxiliary request** reads as follows:

"A system, comprising:
a mobile station configured to:
utilize a cellular wireless service having a wireless channel (106) serviced by a cellular telecommunications network, said wireless channel (106) utilizing cellular wireless signal frequencies that are licensed from governments; and
utilize a wireless service activated when said mobile station is within a wireless service area of an indoor base station using a wireless channel (126) utilizing unlicensed frequencies, said unlicensed frequencies corresponding to frequencies of approximately 2.4 GHz or 5 GHz;
said indoor base station operable to communicate with said mobile station through said wireless channel (126) utilizing said unlicensed frequencies; and

an indoor network controller coupled to said indoor base station and adapted to exchange signals with said cellular telecommunications network;

characterised in that:

the indoor base station being an access point;

wherein said indoor base station is configured to exchange data between the mobile station and said network controller, and said network controller is configured to convert data exchanged between said mobile station and said indoor network controller using a base station controller interface protocol (190) recognized by said cellular telecommunications network to facilitate an exchange of said data between said mobile station and said cellular telecommunications network;

wherein the mobile station includes a plurality of access layers (Figure 7B), an Internet Protocol, IP, layer over the plurality of access layers (Figure 7B), and a plurality of additional protocol layers over the IP layer (Figure 7B), said plurality of additional protocol layers facilitating said exchange of said data between said mobile station and said indoor network controller;

wherein the indoor network controller includes a plurality of access layers (Figure 7B), an IP layer over the plurality of access layers (Figure 7B), and a plurality of protocol layers over the IP layer (Figure 7B), said plurality of protocol layers of said indoor network controller enabling said conversion of said data exchanged between said mobile station and said indoor network controller to facilitate said exchange of said data between said mobile station and said cellular telecommunications network;

wherein the indoor base station includes a plurality of access layers (Figure 7B) and an IP layer over the plurality of access layers (Figure 7B), wherein the

indoor base station does not include any protocol layers over the IP layer (Figure 7B), wherein the indoor base station provides IP connectivity between the mobile station and the indoor network controller utilizing said IP layer (Figure 7B) to facilitate the exchange of said data between said mobile station and said indoor network controller;
wherein said mobile station, said indoor base station, and said network controller are configured to establish, on said wireless channel utilizing said unlicensed frequencies, a communication session using said base station controller interface protocol recognized by said cellular telecommunications network."

Reasons for the Decision

1. *All requests - admissibility*

1.1 In accordance with Article 13(1) RPBA, "Any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy". In line with the established case law of the boards of appeal, one of the criteria for admitting further amendments to a request at a late stage of the appeal proceedings, in the present case only one week before the oral proceedings, is whether or not the request is clearly allowable.

1.2 In the present case, the board considers that the main request is not clearly allowable because claim 1 does

not comply with Article 123(2) EPC for the following reasons:

- 1.2.1 Claim 1 concerns in essence a system comprising a dual-mode mobile station which uses a communication protocol having, on the one hand, protocol layers enabling communication via a cellular telecommunications network, and on the other hand, protocol layers enabling communication via an indoor base station (also called an "access point"), which in turn communicates with an indoor network controller. These latter features form part of what is termed in the application an "Indoor Access Network (IAN)". Examples given are networks based on Bluetooth protocol or IEEE 802.11b (wireless LAN), which use unlicensed spectrum.
- 1.2.2 Claim 1 is now based on an embodiment disclosed in Fig. 7B and paragraph [0065] of the description (referring to the application as published, WO 2004/036770 A). Paragraph [0065] reads as follows:

"Figure 7B illustrates an alternate embodiment in which the IAN-specific protocol functions of indoor base station 128 are moved to mobile station 102, allowing the use of unlicensed access points that do not support IAN-specific functionality but do support generic IP connectivity; for example, standard Bluetooth or IEEE 802.11b access points. As illustrated, in this embodiment, the SSL-based IAN Secure Tunnel and all upper layer protocols terminate on the mobile station. From the perspective of indoor network controller 132, there is no difference between the embodiment illustrated in Figure 7A and that illustrated in Figure 7B."

In other words, this paragraph concerns an embodiment in which the indoor base station essentially does nothing more than relay IP packets in the manner of a standard Bluetooth or IEEE 802.11b access point.

1.2.3 Claim 1 of the main request includes the following passage (underlining by the board):

"wherein said second plurality of protocol layers of the mobile station includes a plurality of access layers (Figure 7B), an Internet Protocol, IP, layer over the plurality of access layers (Figure 7B), and a plurality of additional protocol layers over the IP layer (Figure 7B) for exchanging signals with said indoor network controller;

wherein the indoor network controller includes a plurality of access layers (Figure 7B), an IP layer over the plurality of access layers (Figure 7B), and a plurality of protocol layers over the IP layer (Figure 7B);

wherein the indoor base station includes a plurality of access layers (Figure 7B) and an IP layer over the plurality of access layers (Figure 7B), wherein the indoor base station does not include any protocol layers over the IP layer (Figure 7B), wherein the indoor base station provides IP connectivity between the mobile station and the indoor network controller utilizing said IP layer (Figure 7B)."

1.2.4 The board notes firstly that the wording "wherein the indoor base station does not include any protocol layers over the IP layer" does not appear in the description, but it can be seen from Fig. 7B that this is the case, and is the result of moving protocol

functions represented by the layers SSL/TCP, ITP and IAN-RR, IBSMAP from the indoor base station to the mobile station, when compared with the embodiment of Fig. 7A.

1.2.5 It follows from Fig. 7B that below the IP layer in the mobile station, indoor base station ("access point") and indoor network controller ("iSwitch") there are only access layers, and above the IP layer in the mobile station and indoor network controller there are shown the layers "SSL/TCP", "ITP" and "IAN-RR, IBSMAP" involved with communication between the mobile station and the indoor network controller. However, the passages cited above from claim 1 are much more general than the very specific embodiment disclosed in Fig. 7B and paragraph [0065]. In this respect, unlike Fig. 7B, claim 1 does not specify which layers are above the IP layer, which functions they carry out, or how many layers there are. The number of embodiments embraced by claim 1 is indefinite, not even taking into account that it is quite common to have more than one layer using IP. Neither Fig. 7B nor paragraph [0065] provides a basis for this generalisation.

1.2.6 The appellant argued that claim 1 complied with Article 123(2) EPC for the following reasons:

(i) It follows from Figs. 1B and 1C and paragraphs [0048] and [0049] of the description that the number of layers is not restricted. The skilled person would on the basis of common general knowledge understand that this applies to the embodiment of Fig. 7B as well, since, in accordance with the Guidelines for Examination, H-IV, 2.2, subject-matter is not added if the skilled person can derive the subject-matter directly and unambiguously, using common general

knowledge, from the disclosure of the application as filed.

(ii) The skilled person, on the basis of common general knowledge, would know which layers are necessary for exchanging signals with the indoor network controller, and consequently which layers should be placed above the IP layer in any particular embodiment.

(iii) The skilled person would understand that the principle of having no layers above the IP layer in the indoor base station implicitly applies to other disclosed embodiments too, e.g. the embodiment of Fig. 11A, even if this is not explicitly stated.

1.2.7 Re (i): The board agrees that the test for compliance with Article 123(2) EPC is whether the skilled person can derive the subject-matter directly and unambiguously, using common general knowledge, from the disclosure of the application as filed, but disagrees with the way the appellant has applied this test with respect to claim 1. Figs. 1B and 1C and paragraphs [0048] and [0049] are not concerned with the embodiment of Fig. 7B, or even with IP, and therefore can give no teaching with regard to which layers are arranged above an IP layer. Furthermore, even in paragraphs [0048] and [0049] there is no support for an indefinite "plurality" of layers involved with communicating with the indoor network controller. Rather, specific layers are mentioned (RR-sublayer, mobility management (MM) sublayer, etc.).

Re (ii): Claim 1 embraces using protocols for any type of indoor wireless access network (IAN) utilising unlicensed, free spectrum. With regard to Article 123(2) EPC, the question to be answered is not whether

the skilled person would be able on the basis of common general knowledge to extend the teaching of, e.g., the Fig. 7B embodiment to other types of IAN, which is a question rather related to the issues of sufficiency of disclosure (cf. Article 83 EPC) and inventive step, but whether the application as filed provides a direct and unambiguous basis for such a general teaching. As explained above, the board finds that this is here not the case.

Re (iii): The fact that there is no suggestion in the description that the system of Fig. 11A could be modified in a corresponding manner to Fig. 7B rather supports the conclusion that Fig. 7B is not a general teaching but discloses only a single embodiment. Further, at most it appears that one could argue that it would be obvious to modify Fig. 11A in the same way as Fig. 7B. However, the board notes that the test for compliance with Article 123(2) EPC is essentially a novelty test.

The board therefore finds the appellant's arguments unconvincing.

- 1.2.8 The board concludes that, *prima facie*, claim 1 of the main request does not comply with Article 123(2) EPC.
- 1.3 The above arguments apply, *mutatis mutandis*, to claim 1 of the first and second auxiliary requests, respectively. This was not contested by the appellant. Consequently, *prima facie*, claim 1 of the first and second auxiliary requests respectively does not comply with Article 123(2) EPC either.
- 1.4 As the board determined that, *prima facie*, none of the newly-filed requests complied with Article 123(2) EPC,

it used its discretion to not admit the requests (cf. Article 13(1) RPBA).

2. *Conclusion*

As there is no admissible, and consequently no allowable, request, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



G. Rauh

F. van der Voort

Decision electronically authenticated