Deckblatt Übersetzung

Daten der Übersetzung:

Court/Gericht:	Bundesgerichtshof
Date of Decision / Datum der Entscheidung:	2016-02-16
Docket Number / Aktenzeichen:	X ZR 5/14
Name of Decision / Name der Entscheidung:	Call routing methods

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VOSSIUS & PARTNER
Patentanwälte Rechtsanwälte mbB

München Office
Siebertstr. 3
81675 München/Germany
Tel.: +49 89 413 04-0
Fax: +49 89 413 04-111
(Fax trademarks: -400)

Düsseldorf Office
Kaiserswerther Str. 229
40474 Düsseldorf/Germany
Tel.: +49 89 413 04-0
Fax: +49 89 413 04-111

Berlin Office
Joachimsthaler Str. 34
10719 Berlin/Germany
Tel.: +49 30 340 609-501
Fax: +49 30 340 609-512

Basel Office
Nadelberg 3
4051 Basel/Switzerland
Tel.: +41 61 5601-490
Fax: +41 61 5601-488

info@vossiusandpartner.com
www.vossiusandpartner.com

Nullity Appeal Proceedings - Case No. X ZR 5/14
Nullity Suit 5 NI 72/11 (EP) against the German Part DE 60 2006 017 407.1
of European Patent EP 1 931 094
Patentee:
Plaintiff:
Our Ref.: T2724 EP/DE/NI SWA

English Translation

FEDERAL COURT OF JUSTICE

IN THE NAME OF THE PEOPLE

JUDGMENT

X ZR 5/14

Given on:
February 16, 2016
Anderer
Court secretary
as registrar of the
Court Registry

in the patent nullity case

Plaintiff and Appellant,

- attorneys of record:

versus

Defendant and Appellee,

- attorneys of record:

cooperating:

On the basis of the oral proceedings of February 16, 2016 and with the cooperation of the presiding judge Prof. Dr. Meier-Beck, the judges Dr. Grabinski and Hoffmann and the judge (Ms.) Schuster and the judge Dr. Deichfuß, the Xth Civil Senate of the Federal Court of Justice

gave the following judicial decision:

In response to the appeal of Plaintiff, the judgment of the 5th Senate (Nullity Senate) of the Federal Patent Court given on September 18, 2013 is revised.

The European patent 1 931 094 is declared null in its entirety with effect for the Federal Republic of Germany.

Defendant shall bear the costs of the lawsuit.

ex officio

Facts:

1 Defendant is the owner of European patent 1 931 094 (patent in suit), which was granted with effect for the Federal Republic of Germany, filed on August 30, 2006 and claims a priority of August 31, 2005. In the version as granted, it comprises 15 claims, wherein claim 1 reads as follows in the language of the proceedings:

> "A Circuit Switched, CS, domain call terminating method of call routing characterized in that the method is a method of avoiding repeated routing control in a CS domain call terminating flow, comprising:
>
> receiving, by a GMSC, routing-controlled information of a call carried in a received call initiation message;
>
> sending, by the GMSC, the routing-controlled information of the call to a gsmSCF; and
>
> executing, a subsequent call flow of the call in accordance with the received routing-controlled information, wherein the executing comprises:
>
> determining, by the gsmSCF, that the call has been subject to routing control in accordance with the routing-controlled information;
>
> sending, by the gsmSCF, a Continue message to the GMSC; and
>
> sending, by the GMSC, to an HLR an SRI message carrying a suppress T-CSI parameter upon receipt of the Continue message to obtain an MSRN through standard call terminating procedures."

2 Plaintiff asserted that the subject-matter of the patent in suit extended beyond the content of the documents as originally filed and was not patentable. In view of claims 14 and 15, Plaintiff moreover asserted lack of enabling disclosure.

3 Defendant defended the patent in suit in a version not comprising claim 12.

4 The Patent Court declared the patent in suit partly null in that claim 12 is missing; as to the rest it dismissed the action. Plaintiff's appeal is directed thereto. With its appeal, Plaintiff further pursues its request that the patent in suit be declared null in its entirety. Defendant opposes this appeal.

Reasons for the Decision:

5 The admissible appeal is successful.

6 I. The patent in suit relates to a method of making a telephone call with the involvement of a mobile communication network.

7 1. The patent in suit refers to a project of the 3rd Generation Partnership Project (3GPP), a cooperation of standardization committees for mobile communication which deals in the Technical Report 23.806 V1.3.0 (VP2) with a real-time "*Voice Call Continuity*" (VCC) for mobile devices which can make calls not only in the "*circuit switched*" (CS) mobile communication network (CS domain) but also, e.g., by means of a WLAN connection to the Internet (*IP-Multimedia Subsystem* - IMS) according to the VoIP standard. The standardization project deals with different scenarios which relate, i.a., to the calling of such a mobile device and the receiving of such calls, depending on whether the device is presently connected via the mobile communication network (CS domain) or via the Internet (IMS domain), wherein it should be possible that the mobile device calls and is called under the same (mobile) call number in both networks.

8 For one of the scenarios in which a mobile device ("other end") being in the CS domain wants to call another mobile device ("user equipment" - UE) also being in a CS domain under its mobile call number which is registered for both the CS domain and the IMS domain as possible connection path, VP2 describes in Figure 6.2a.3.2-5 the following scenario for establishing a call when the call is directed to the CS domain:

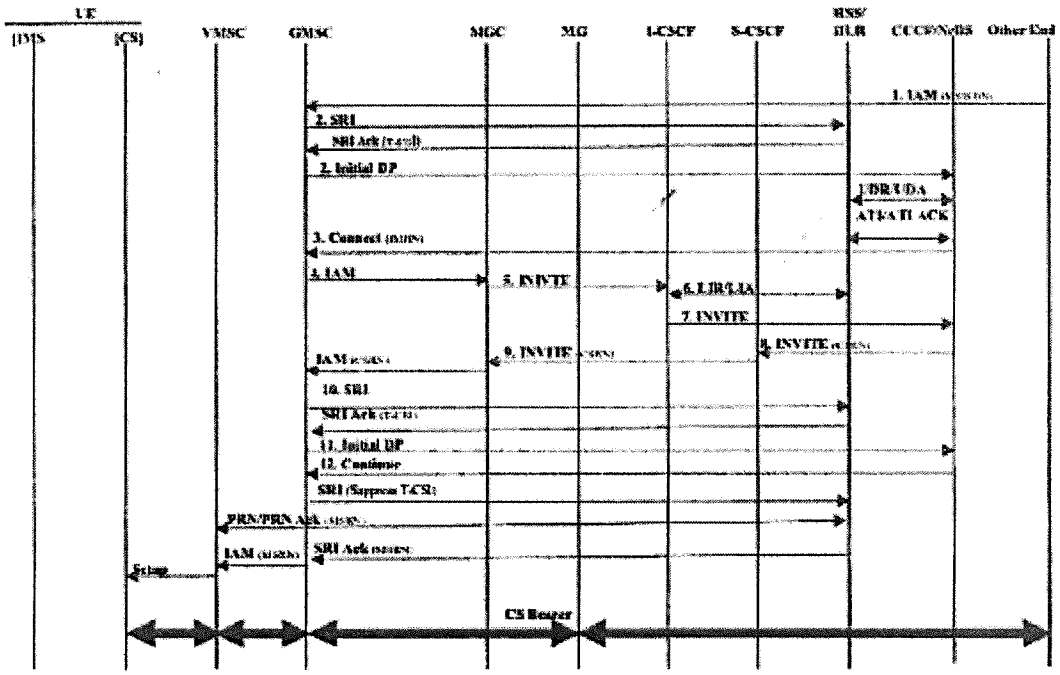

Figure 6.2a.3.2-5: CS Termination Anchored at CCCF; CS origination, Call Directed toCS walkthrough

9 In this scenario, the mobile switch center in the CS mobile communication network ("*Gateway Mobile Switch Center*" - GMSC, in the following also only: switch center) sends at the end of step 2 a message called *Initial Detection Point* (IDP) to the control unit referred to in the patent in suit as *Global System for Mobile Communications-Service Control Function* (gsmSCF) and in VP2 as *Call Continuity Control Function* (CCCF)/*Network Domain Selection* (NeDS). This is a combined functional unit which, according to VP2,

should be added to the network structures of the CS and IMS domains (VP2, sections 6.2 to 6.2.2) and which should guarantee the network selection to be performed for a call (NeDS) and also the compliance with the continuity demands of a call and the reachability in case of a change between the two networks (CCCF). Parts of the functionality of the control unit CCCF/NeDS (in the following also only: control unit) are referred to in the patent in suit also as *Domain Selection Function* (DSF) (patent in suit, column 2, paragraph 8).

10 In the IDP message from the switch center to the control unit provided for at the end of the second step, the globally unique mobile call number (MSISDN) of the called subscriber, which is transmitted in the first step together with the *Initial Address Message* (IAM), is used for identifying the called subscriber. The following steps i.a. serve for determining the route on which the called subscriber can be reached, and the related routing information which is transmitted from the control unit to the switch center in the form of a *CS-Domain Routing Number* (SCRN) together with the INVITE and IAM messages transmitted in steps 8 and 9. In step 10, a *Sending-Routine-Information* (SRI) message is transmitted to the *Home Location Register* (HLR) acting as database for the called mobile communication subscriber, wherein his/her MSISDN is used for this purpose. In step 11, an IDP message is again transmitted from the switch center to the control unit, which should be answered with a CONTINUE message in accordance with the intended scenario of Figure 6.2a.3.2-5 of VP2.

11 In accordance with the patent in suit it is assumed that when an IDP message is sent again in step 11, the MSISDN of the called mobile device and not the CSRN required for a routing to this device is transmitted to the control unit in which the call is anchored. According to the patent in suit, the control unit thus cannot determine whether routing control has already been performed on the call in accordance with the preceding steps 2 to 9 or whether, in other words, the IDP message is a message in accordance with step 2. Further, this can result in a repeated routing control according to steps 2 to 8 instead of a CONTINUE message according to step 12, so that the call cannot be switched normally in the CS domain (patent in suit, column 8, paragraph 42, lines 37 to 51).

12 Thus, it is the object of the patent in suit to avoid repeated routing control steps in order to thereby improve the process of establishing a call to a mobile device which can be used in both the CS domain and the IMS domain.

13 2. For achieving this object, the patent in suit suggests a method for establishing a call comprising the following features [the numbering of features according to the contested judgment is shown in square brackets]:

1. The method serves for terminating a call by means of call routing in a circuit switched CS domain (*circuit switched [CS] domain call terminating method of call routing*) [1.1],

   1.1 wherein a repeated routing control in a CS domain call terminating flow is avoided (*a method of avoiding repeated routing control in a CS domain call terminating flow*) [1.2].

2. The method comprises the following steps [1.2]:

   2.1 A switch center GMSC receives information about routing control of a call

in a call initiation message (*receiving, by a GMSC, routing-controlled information of a call carried in a received call initiation message*) [1.3].

2.2 The switch center GMSC sends information containing the routing control of the call to a control unit gsmSCF (*sending, by the GMSC, the routing-controlled information of the call to a gsmSCF*) [1.4].

3. The following call flow is in accordance with the received routing control information (*executing a subsequent call flow of the call in accordance with the received routing-controlled information*) [1.5]:

3.1 The control unit gsmSCF determines on the basis of the received routing control information that the call has been subject to routing control (*determining, by the gsmSCF, that the call has been subject to routing control in accordance with the routing-controlled information*) [1.5.1].

3.2 The control unit gsmSCF sends a CONTINUE message to the switch center GMSC (*sending, by the gsmSCF, a Continue message to the GMSC*) [1.5.2].

3.3 The switch center GMSC sends an SRI message to a localizing register HLR with a *Terminating-CAMEL-Subscription-Information* (T-CSI) suppression parameter in order to receive, after the receipt of the CONTINUE message, a roaming number (*Mobile Station Roaming Number* - MSRN) because of standard call terminating procedures (*sending, by the GMSC, to an HLR an SRI message carrying a suppress T-CSI parameter upon receipt of the Continue message to obtain an MSRN through standard call terminating procedures*) [1.5.3].

14 3. Some features should be explained in more detail:

15 a) "Call terminating" means the establishment of a speech connection to a mobile device because of a call directed to the corresponding mobile call number.

16 b) Call routing according to feature 1 determines via which stations in the communication network the connection to the mobile device is established.

17 c) A repeated routing control is avoided in accordance with feature 1.1 when routing control steps are not unnecessarily performed several times when establishing a call to a mobile device.

18 d) Routing control information according to feature 2.1 is information which serves for establishing a connection route to the called mobile device and does not represent its MSISDN but further concretizes the possible route. In the description of the patent in suit it is stated that the sending of only the MSISDN in the method step corresponding to feature 2.2 is just the reason why a repeated routing control can be established, and that this is avoided by sending routing control information different from MSISDN (patent in suit, column 8, paragraph 42, line 29 to column 9, paragraph 43, line 5). For the steps according to features 2.2 to 3.1 it is of course sufficient in view of the information containing the routing control and the routing control information to send information, e.g., in the form of a single bit, according to which previously a routing control extending beyond MSISDN took place (patent in suit, column 10, paragraph 52, lines 38 to 41). The content concretizing the routing control does not need to be present in the information transmitted or evaluated in accordance with features 2.2 to 3.1.

19 e) By means of an SRI message according to feature 3.3, the switch center GMSC asks the register HLR for further routing information. In order not to receive (only) the message that the called mobile device with the selected call number is accessible in both the CS domain and the IMS domain, a T-CSI parameter is sent in the step according to

feature 3.3. This causes the register to send a Roaming number MSRN on the basis of which the switch center and other functional units of the mobile communication network establish a connection to the called mobile device (UE) in accordance with standardized procedures.

20 II. The Patent Court is of the opinion that the subject-matter of the patent in suit - which is considered to be originally disclosed and enabling - is patentable and substantiates this opinion basically as follows:

21 The scenario of Figure 6.2a.3.2-5 of VP2 shows a call terminating method comprising features 1, 2, 2.1, 3.2 and 3.3. Even if feature 1.1 is not taken into account during examination of patentability because it is not a direct feature of the protected method but only an aim to be achieved, VP2 does not show the method steps 2.2, 3 and 3.1 and, therefore, is not detrimental to novelty. VP2 does not clearly and unambiguously show that information containing the routing control is sent to the control unit, that the latter determines that the call has been subject to routing control, and that the further call flow is carried out in accordance with this information.

22 Sending a CONTINUE message according to step 12 of Figure 6.2a.3.2-5 of VP2 does not clearly and unambiguously show to the person skilled in the art that the control unit has previously received information containing the routing control with the IDP message in step 11 and evaluates this information because VP2 nowhere discusses the problem of repeated routing. Plaintiff's assumption that the switch center GMSC previously received in an IAM message the CSRN as "*Called Party Number*" and therefore this information is used in the subsequent IDP message is not convincing because previously the MSISDN is determined on the basis of the CSRN so that the person skilled in the art will use this number as "*Called Party Number*". It is therefore by no means self-evident to use in

VP2 the CSNR in the IDP message, and the same applies to the document 3GPP TSG SA WG2 Architecture - VCC Ad hoc., August 9 to 11, 2005 (VP1), which substantially relates to the same situation.

23 The subject-matter of the patent in suit is also based on an inventive step. Based on VP2, which discloses various examples for anchoring a call in the CS domain, the person skilled in the art is not faced with the problem of developing a CS domain connection terminating method in which a repeated routing control is prevented because VP2 nowhere mentions this problem. Therefore, the person skilled in the art did not have any reason to depart from the procedure known in the art for establishing a call in a CS domain. As far as other documents of the project 3GPP, such as the technical specifications 3GPP TS 23.078 V6.6.0 (VP3) and 3GPP TS 29.078 7.0.0 (VP4), contain statements as to the establishment of an IDP message, a "*Called Party Number*" being the MSISDN of the called mobile device is transmitted therein. Therefore, for a procedure according to Figure 6.2a.3.2-5 of VP2, the person skilled in the art will also revert to the MSISDN for an initial-DP message according to step 11 of this scenario, because this number is determined for the previous step on the basis of the IAM message and the CSRN transmitted therein. Even if the person skilled in the art notices that a repeated routing takes place when using the MSISDN in this step, VP2 cannot suggest to him/her or motivate him/her to transmit the CSRN instead of the MSISDN.

24 III. This does not withstand reexamination in the appeal proceedings.

25 1. The subject-matter of claim 1 is not patentable. It can be left open whether or not the method described therein had already been disclosed in a novelty destroying manner in the prior art. In any case, this method is not based on an inventive step.

26 a) The Patent Court has - without legal error and in an uncontested manner - defined the person skilled in the art to be a graduate communications engineer whose special field is signal processing in mobile communication systems and who has several years of professional experience in connection with call routing methods.

27 b) In accordance with the further statements of the Patent Court, a method comprising features 1, 2, 2.1, 3.2 and 3.3 was disclosed to the person skilled in the art in the prior art relevant to him/her on the basis of VP2 with its draft version V1.3.0 published on August 19, 2005, in particular in view of the scenario described therein on the basis of Figure 6.2a.3.2-5. This is not contested by Defendant.

28 c) VP2 does not explicitly state whether and if applicable how the IDP message according to step 11 of Figure 6.2a.3.2-5 differs from the IDP message described in step 2 and on the basis of which program specifications the control unit CCCF does not output the same response as after the IDP message in step 2 but sends a CONTINUE message in step 12.

29 d) If, as assumed by the Patent Court, the person skilled in the art had not already taken from the overall procedure according to Figure 6.2a.3.2-5 that the IDP message according to step 11 must differ in view of its content from that of step 2 so that in step 12 the control unit outputs a different answer (CONTINUE message) than in step 3 (CONNECT message) based on a decision process made in this regard, and that for this purpose the CSRN transmitted in step 9 or another clear differentiating feature had to be used as differentiating feature, the person skilled in the art in any case had to think about how he/she can realize and optionally further develop the standardization draft disclosed in VP2 in a suitable manner. This motivated him/her to transmit together with the IDP message after step 11 not the MSISDN but the CSRN.

30 aa) First of all, the quality of the draft published as VP2 should be taken into consideration. In accordance with its preface (VP2, page 7), the content of this draft was the subject of ongoing work and considerations and had not been finally confirmed by responsible panels. This meant to the person skilled in the art that the draft could have gaps which would have to be filled. Moreover, the drafted standard was not meant to define to the person skilled in the art any commands for programs to be drafted, which are necessary in a method according to this standard in the respective functional units. It was therefore intended that the scenarios drafted in VP2 are further concretized by the person skilled in the art in view of their technical realization.

31 bb) In view of this constellation, the person skilled in the art was expected to know that in the scenario of Figure 6.2a.3.2-5 of VP2, the procedure after the IDP message in step 2 should differ from the procedure after the IDP message according to step 11. After step 2, the control unit should make an inquiry at the register HLR. In contrast, in connection with step 11 VP2 mentions that with this IDP message the execution of the appropriate logical steps for the call (VP2. 6.2a.3.2.3.2.2.3 No. 11: "*for execution of appropriate service logic for the incoming session*") and in step 12 a CONTINUE message should follow. Therefore, it should have been known to the person skilled in the art that the control unit must differentiate between the two steps and that a basis for this decision is necessary in this regard. Therefore, the person skilled in the art was motivated to consider how such a basis for a decision can be made for the control unit after receipt of the respective IDP messages in steps 2 and 11.

32 From the scenario of Figure 6.2a.3.2-5, the person skilled in the art knew that the two IDP messages sent by the switch service to the control unit in steps 2 and 11 differ from each

other in that in step 2 the switch service knew only the call number of the called mobile device for call routing (the MSISDN transmitted in step 1 per IAM message) and that the subsequent steps should lead to the fact that due to the IDP message of step 2 further information for concretizing the call route is obtained. The switch service GMSC should receive this further routing information with the IAM message according to step 9 in the form of the CSRN.

33 For the switch service, the situation before step 2 on the one hand and step 11 on the other hand thus differs in that before step 2 it receives an MSISDN in an IAM message and before step 11 a CSRN in an IAM message. For the switch center GMSC, this information is the criterion for being able to differentiate between step 2 and step 11. In view of the necessity to allow also the control unit CCCF to differentiate between the situations after steps 2 and 11, it therefore offered itself to transmit this very difference in the data situation also to the control unit.

34 This is also supported by the disclosure of the technical specification 3GPP TS 29.078 7.0.0 (VP4) relating to the CAMEL protocol, which describes in Annex 1 under A.1 how the data for an IDP message are combined from a previous IAM message ("*mapping*"). As first datum, the number of the called mobile device is transferred from the IAM message into the IDP message. Normally, it is the MSISDN of the called mobile device, like in steps 1 and 2 of Figure 6.2a.3.2-5. However, if a CSRN is transmitted with the previous IAM message as call number of the called mobile device, the person skilled in the art should at least wonder whether he/she transmits the CSRN or a MSISDN determined on the basis thereof for the following IDP message. In view of the skilled person's motivation to

find for the control unit CCCF a criterion for differentiating between the two IDP messages of steps 2 and 11, he/she was thus expected to use for the IDP message not a MSISDN determined on the basis of the CSRN but the SCRN itself as call number of the called mobile device.

35 cc) This does not conflict with the fact that Figure 6.2a.3.2-5 of VP2, no. 10, shows the instruction for the switch service GMSC to actually determine before step 10 the SMISDN on the basis of the CSRN for the SRI message to be transmitted to the register HLR. Plaintiff explained this in an uncontested manner by stating that the register can process only the MSISDN but not the CSRN.

36 dd) Moreover, this does not conflict with the fact that a repeated conduction of the routing control in steps 2 to 10 could also have been prevented by other measures. Not only the most obvious solution to a technical problem but any solution obvious to the person skilled in the art lacks patentability. If a plurality of alternatives suggest themselves to the person skilled in the art, a plurality of them can thus be obvious. In this connection it is also generally irrelevant which one of the alternative solutions is considered first by the person skilled in the art (see BGH, judgment of March 6, 2012 - X ZR 50/09, juris margin no. 19).

37 Defendant states that a repeated conduction of steps 2 to 10 could also have been avoided in that the control unit CCCF stores at step 8 that it assigned a specific CSRN for a concrete combination of called call number and calling call number for the INVITE message following this step, maintains this storage for a narrowly limited time period, then determines after the IDP message in step 11 on the basis of the MSISDN transmitted

therewith the already performed transmission of a CSRN and therefore makes the decision in step 12 to transmit a CONTINUE message.

38 It can be left unanswered whether or not such a solution was at all obvious. In any case, it was not the sole solution and not even the preferred one to be considered by the person skilled in the art. Rather, this solution has disadvantages. Storing the assignment of a CSRN in step 8 including deleting this storage and comparing this datum with the data transmitted in step 11 in the IDP message, only to find out that the IDP message transmitted in step 11 is based on a previous routing control involves - as stated in an uncontested manner by Plaintiff - much more data processing than simply linking the IDP message with the information that a routing control has already taken place and therefore the control unit CCCF has to send a CONTINUE message in step 12.

39 ee) Therefore, the person skilled in the art could have been expected to send, together with the IDP message according to step 11, also the information that the message of the switch service GMSC follows the receipt of the CSRN. For this purpose, the CSRN could be transmitted in the IDP message or a separate bit could be sent which shows this information basis in the meaning of information containing the routing control (feature 2.2), so that the control unit can determine that the call was subject to routing control (features 3 and 3.1), a CONTIUE message to the switch center can follow (feature 3.2) and the steps 2 to 10 are not carried out repeatedly (feature 1.1).

40 e) By concretizing or further developing the scenario shown in Figure 6.2a.3.2-5 of VP2, in which the CSRN or other information showing the continued routing control is transmitted together with the IDP message according to step 11 and thus in connection with

the data processing of the control unit CCCF the decision to send a CONTINUE message in step 12 is made on the basis of this information, the person skilled in the art thus arrived in an obvious manner for the scenario described in Figure 6.2a.3.2-5 and possibly further, similar scenarios - such as the scenario described in Figures 6.2a.3.2-3 and 6.2a.3.2-4 of VP2 - at a method comprising all features of the subject-matter of claim 1.

41 2. It has not been asserted and it is not evident to the Senate that patentability of the subject-matter of collateral claims 9, 14 and 15, which each claim devices or a system of devices being able to carry out a method according to the teaching of claim 1, as well as the subject-matter of the claims dependent on claims 1, 9 14 and 15 of the patent in suit should be assessed in a different manner.

42 IV. The decision as to the costs is based on Section 121 subsection 2 PatG, Section 91 subsection 1 ZPO [German Code of Civil Procedure].

Meier-Beck Grabinski Hoffmann

Schuster Deichfuß

Previous instance:
Federal Patent Court, decision of September 18, 2013 - 5 Ni 72/11 (EP)